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EDITORIAL



SCIENCE FICTION SERIES

I have received a letter from Nancy Bykowski of Bolingbrook, Illinois, which says, in part, "I have noticed the trend in recent years towards trilogies and serial volumes. I enjoy reading a series of books set in the same background, but it can be frustrating when the books do not stand alone. . . . But there are some authors out there that seem to be writing serials so that we will be forced to buy their next book. I believe I read somewhere that the publishers tend to encourage that kind of thinking. So my question to you is, did you write your 'Foundation' trilogy in response to a request from a publisher, or was it simply the result of an idea that was too big for one volume?"

As it happens, I, too, have noticed the tendency for novels to come in clumps these days. (It's true of movies, also. Someday, we will have a motion picture called "Rocky XVII Meets Superman XI.")

But why is that? Why are so many writers turning out a series of connected novels?

One very obvious reason is that it makes life simpler for them. In-

stead of having to invent a new social background for each story, they can make use of one that they have already devised. The writer can thus begin a new novel with a ready-made background and sometimes with ready-made characters. If you're not a writer yourself, you have no idea how much mental agony and psychic wear-and-tear that saves.

Then, too, readers who have enjoyed a book often welcome a return of the same characters and background. As a result, the pressure for a sequel and even for a continuing series is likely to come, at least to begin with, from those readers rather than from the author or publisher.

Publishers naturally welcome any book in which the chance of success and profitability is high. They are always more eager to receive a manuscript from an established writer than from a newcomer because they can usually be sure that the former will be profitable, while the latter always represents a risk. By similar reasoning publishers would prefer to have an established writer do another book

of a popular series than venture in a new direction altogether. The series book is more nearly a sure thing, and publishers are almost as fond of a sure thing as you and I are.

However, are these series of novels written simply to force readers to buy the next book against his will? Of course not. If readers don't like a particular book, they are not likely to buy a sequel. If they like the first three books of a series and find the fourth disappointing, they are less likely to buy the fifth.

In short, a maintained popularity and profitability will tend to keep a series going indefinitely. Non-popularity or declining popularity will bring an end of the series quickly.

As a matter of fact, far from a series of books continuing just to lure reluctant readers into purchasing volumes that they don't really want to read, it is the reverse that is likely to be true. It is the writer, not the reader, who is likely to be victimized. After all, writing a long series of related books can grow awfully tiresome for a writer. He may have sucked the juice out of his characters and background and may long to go in other directions, thus stretching and resting his cramped and aching mind.

The writer therefore quits and goes about his business—and then a storm arises. Readers express loud disappointment and make demands for another book in the series. Publishers, becoming aware of this, and seeing no reason to al-

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low profitability to go glimmering, then proceed to put pressure on the writer, who is often far less enthusiastic about his series than anyone else is—and, in the end, he *must* write. In that case, anyone who says to him, "You're turning out endless reams of this junk just to con the reader into buying your books," is likely to get a punch in the mouth if the writer is of the violent persuasion, or a sad look if the writer is as gentle and lovable as I am.

I'm talking from personal experience. The first three books of the Foundation series are compilations of separate pieces written for *As-tounding Science Fiction* between 1942 and 1950. They were written at editorial insistence, but, for a while, I was eager to comply.

I had had enough of them after eight years, however, and, in 1950, determined to write no more. I resisted all entreaties for additions to the Foundation series and ignored all threats for thirty-two years! And then, finally, Doubleday began snarling and foaming at the mouth so I agreed to write *Foundation's Edge* and *Foundation and Earth*, the fourth and fifth books of the series.

So there you are, Ms. Bykowski. My Foundation series was written, at least in part, as a result of publisher's (and readers') pressures, but they also deal with a theme too large to be contained in one story or one novel, and each portion of the series, whether a short story or a novel, stands on its own.

But is this business of stories and novels in series an invention of science fiction? It certainly is not. It is not even a modern phenomenon. The same pressures that lead to sequelization today were operative in ancient times as well so that sequels and series must surely be as old as writing.

The *Iliad* had the *Odyssey* as its sequel, and other Greek writers capitalized on the unparalleled popularity of these two epics by writing other epics concerning events preceding, succeeding, and in between these two (none of which have survived).

The great Greek dramatists tended to write trilogies of plays. Aeschylus built a trilogy around Agamemnon, Sophocles built a trilogy about Oedipus, and so on.

Coming closer to home, Mark Twain wrote *Tom Sawyer* and when that proved successful, he wrote a sequel, *Huckleberry Finn*, and when that proved even more successful, he wrote a couple of other tales of Tom and Huck, and when those were *not* successful, he stopped.

Of course, a series need not concentrate on "continuing the plot." It may consist of a series of independent stories, which, however, share a common background and a continuing character. An enormously successful series of this sort was A. Conan Doyle's "Sherlock Holmes" stories. So compelling a character did Doyle create in Sherlock Holmes that the public could never get enough of him.

Doyle quickly began to grow

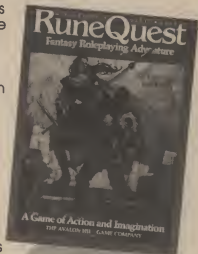
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tired of writing the stories and, indeed, began to hate Sherlock Holmes who had grown so large in public consciousness as to totally overshadow Doyle himself. In desperation, Doyle *killed* Sherlock Holmes—and was then forced to bring him back to life. Here is an extreme example of the victimization of an author (though it did make Doyle extremely wealthy). Other mystery novel series featuring a continuing detective (Hercule Poirot, Nero Wolfe, etc.) followed as a matter of course.

When I was young, series of independent stories featuring continuing characters were extremely common. There were the Nick Carter books, the Frank Merriwell books, and others, too. There were magazines which, in each issue, carried a novella featuring some character such as the Shadow, the Spider, Doc Savage, Secret Agent X, Operator 5, and so on.

Naturally, science fiction was influenced by such things. During the 1930s and '40s, Neil R. Jones wrote some twenty stories featuring Professor Jameson and a group of companion robots with human brains; Eando Binder wrote ten stories about another robot, Adam Link; Nelson Bond wrote ten stories about a lovable bumbler named Lancelot Biggs.

However, the first successful series of *novels* in science fiction were by E. E. Smith. Between 1928 and 1934, he turned out three "Sky-lark" novels, and between 1934

and 1947, he turned out five "Lensman" novels.

In the 1940s, Robert A. Heinlein produced something new in his "Future History" series. Here the plots seemed independent and were set at widely different times, but they all fit into a consistent historical development of the Solar system, so that there were references in stories set later in time to events in stories set earlier in time.

I began another series of this sort with "Foundation" in 1942. I expanded the background to the Galaxy as a whole and proceeded to trace the history methodically from story to story, without jumping about. Later, I tied in my "Robot" series and my "Empire" series so that my own future history series now consists of thirteen novels—with others to come, I suppose.

Other series of the "Foundation" type followed, the most successful being Frank Herbert's "Dune" series.

In fantasy, the great success was J. R. R. Tolkien's "Lord of the Rings" trilogy, which inspired a host of imitations. The late Judy-Lynn del Rey, and her husband, Lester, with their marvelous ability to spot trends, encouraged the writing of novel-series and put them out under their publishing imprint of "Del Rey books," so that we now have a virtual inundation of book-series.

The fashion may pass, but while it is here, it seems to be bringing us a considerable number of good things to enjoy. ●

ISAAC
ASIMOV's
SCIENCE FICTION
MAGAZINE

CONGRATULATES THE WINNERS OF THE 1985 HUGO AWARDS

Best Novel

Ender's Game

by Orson Scott Card

(expanded from "Ender's Game,"
Analog, August 1977)

Best Novella

**"24 Views of Mt. Fuji,
by Hokusai"**

by Roger Zelazny
(*Asimov's*, July 1985)

Best Novelette

"Paladin of the Lost Hour"

by Harlan Ellison

Best Short Story

"Fermi and Frost"

by Frederik Pohl
(*Asimov's*, January 1985)

Best Non-Fiction Book

Science Made Stupid

by Tom Weller

Best Professional Editor

Judy-Lynn del Rey

(declined)

Best Professional Artist

Michael Whelan

Best Dramatic Presentation

Back to the Future

Best Semi-Prozine

Locus

edited by Charles N. Brown

Best Fanzine

Ian's Lantern

edited by George Laskowski

Best Fan Writer

Mike Glyer

John W. Campbell Award for

Best New Writer

Melissa Scott

Best Fan Artist

Joan Hanke-Woods

LETTERS

Dear Dr. Asimov:

Regarding your recent editorials on plagiarism and originality, I would like to point out a saying on the subject which I, as a writer, find helpful. The saying goes something like "To steal from one source is plagiarism, to steal from two sources is research," the idea being that there is a thin line between an idea that rightfully belongs to one author and an idea that is in the public domain. Of course, this may apply more to my type of material (nonfiction) than to fictional concepts since it is harder to claim facts as personal property than concepts.

On another subject, I have noted (and applauded) your opposition to our government's present militaristic attitude, and especially the emphasis on using technology as a tool of the military. You might be interested in knowing that the principles of peace are now being studied in a scientific manner. Congress has recently established (over strong White House opposition) the United States Institute of Peace. This organization will attempt to organize a group of sociologists, psychologists, and related professionals to study the social, political, and psychological causes of war with the emphasis on developing nonviolent means of con-

flict resolution. The ultimate goal of this organization is to reduce peaceful negotiation and mediation to an exact science that can be quickly and effectively applied at the start of any hostilities. Perhaps they will even develop something like the science of "psycho-history" that has occasionally appeared in the works of a certain eminent writer. More information about this Institute can be obtained by writing to its nongovernment affiliate, the National Peace Institute Foundation, 110 Maryland Avenue N.E., Washington, DC 20002. Sincerely,

David Leithauser
New Smyrna Beach, FL

Thank you for the information on the "U.S. Institute of Peace."

—Isaac Asimov

Dear Dr. Asimov:

I just wanted to thank you for your beautiful farewell letter to Judy-Lynn del Rey. Before your letter appeared (as the editorial for the May '86 *IASfm*) I knew Mrs. del Rey only as one name among many within the pantheon of SF/F publishers. But thanks to your tribute and farewell to her I felt I got to know her and to care about her . . . only to lose her at the close

of your letter. In addition I also think that the SF/F publishing world has lost its greatest asset and champion. We may not have known Judy-Lynn del Rey in the same capacity as you did (as a friend, colleague, and publisher), but we all know the SF/F world won't be quite the same now that she's gone.

Thank you again for sharing your memories of her with us (and if anyone should take you to task for being "that gullible," just you refer 'em to me. As an alumna of the School for the Perpetually Gullible I *know* Judy-Lynn could've played "Got'cha" with *me* with at least a ninety-five percent success rate!).

And thank you for your great magazine. May's issue was the second issue in my subscription and I devoured it (figuratively, not literally) within minutes of its arrival on my doorstep. If I have one complaint (did I just hear a groan?) it would have to be that James Tiptree, Jr., showed a propensity towards portraying women as victims in his May cover story, *Collision* (yup, I definitely heard a groan!). In particular the two women who died were cast as "sacrificial" victims. *They* had to die in order for the Federation and the Zieltans to reach a basis of mutual understanding and trust. . . . I don't mind that concept of somebody having to die in order to further the cause of intergalactic peace (so long as it's not *moi*), but why couldn't Tiptree have given equal time to the MALES as well. Okay, I'll concede that he *did* portray women in strong key leadership positions within the Federation—BUT those same strong women "execs" and depart-

ment heads were shown safe behind a desk, safely "behind the lines." And the two women who WERE in the thick of the action got bumped off. Now I could swallow the death of the female "sensitive" but I really started to get honked off at Tiptree when Shara got nabbed by the Ziello and held hostage. Tiptree seems to be saying in that scenario that, women being "weaker" than men, Shara was the "logical" choice for hostage bait. The readers (especially the males) would all be engaged by the concept of that "sweet young thing" being placed in peril in that manner, and would wait with bated breath for one of the human males to rescue her, or sacrifice himself to save her. And when she died . . . oh, my! Hell, even *I* was grieved at her demise because Tiptree had portrayed her as an engaging "young thing." But I also would've been just as grieved if he had placed Torrane in the same jeopardy, with the same end result—mainly because, of all the human males portrayed on RimRunner One, Torrane is the most sympathetic.

So that's my complaint, "Doc" (oh, yeah, I definitely hear groaning!). Forgive me for letting my feminist fervor get the better of me. And thanks again for sharing Judy-Lynn del Rey with us. Blessed be!

Kathi Higley
Hamden, CT

Thank you for a very pleasant letter, but I think you are a little hard on James Tiptree, Jr. "He" is definitely not a male chauvinist, because "his" real name is Alice

Sheldon, a fine liberated woman. If, in "his" story, women appear as victims, I am sure that represents the necessities of plotting and not the fact that "he" enjoys that sort of thing.

—Isaac Asimov

Dear Gentle Doctor Asimov,

I find myself writing to a science fiction magazine (or more specifically in this case a science fiction and science author) for the first time despite the fact that I have been reading the same for over twenty years. Your editorial, "Outsiders, Insiders," has brought about this action. This ominous standard of being "in" or "out" applies not only to writers but to the readers of science fiction. You mentioned this in your first paragraph but not later in the editorial. This just goes to show that one's personal point of view, yours as an author and mine as a reader, understandably takes priority.

I have found that any time I have attended a convention or discovered an acquaintance that read science fiction there is a certain amount of competition in proving who had read the most science fiction or, in most cases, who had read the most esoteric stories/authors. I realize that while this competition may be healthy for the sale of magazines and/or books, it does not promote any feeling of brotherhood.

This competitive feeling has a fair amount of animosity built into it. To be totally honest, if I am on the "inside" there is a feeling of superiority, and if I am on the "outside" there is resentment.

The only time that I find that a feeling of brotherhood occurs is when confronted by a common adversary (i.e. someone who does not read SF at all). Even though I grew up during the enlightened sixties I found myself constantly trying to defend the type of fiction I read. This was not restricted to instructors and parents but also to my peers.

I fear that this case of brotherhood may have a detrimental effect on SF. In my attempts to convince the non-SF reader to read SF I have more often than not just reaffirmed their belief that SF is just for "space weirdos" or worse.

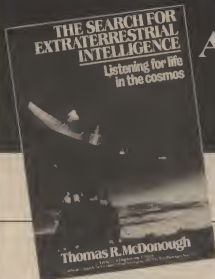
I assume that many members of the "brotherhood of science fiction" would like to expand their numbers. I hope that when talking with non-brothers we would avoid making anti-SF readers. I hope that when the brotherhood gathers it can learn to open its arms to all new and old members with equal friendliness.

Magazines and writings such as yours will surely help the brotherhood grow. Keep up the good work.

Wayne Paul Boese
Phoenix, AZ

You make a good point, and this is something that I have had no experience with. When I was "just a reader" fifty years ago, there was so little science fiction that anyone who was a fan read it all. And since I've become a writer, of course, no one ever questions my bona fides. Rest assured that my sympathies are all with you.

—Isaac Asimov



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—Ben Bova



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Dear Sirs,

I have subscribed to this wonderful magazine since high school and one of the first issues I received contained one of the best stories I have ever read in *any* genre: Barry Longyear's *Enemy Mine*. I was pleased to see that my enthusiastic opinion of the story was matched by the rest of the SF-reading community (it won a Hugo, didn't it?). The amazing thing, of course, is that it was good enough to grab the attention of the movie-making set—and the movie just came out, as I'm sure you know. It's nice to see that movie producers are willing to gamble an entire movie on a wonderful story that probably was only read by a very small percentage of readers.

Anyway, I saw the movie and liked it a lot, although they of course felt they had to spice it up in certain ways and it lost some of its charm—but when has there been a perfect movie adaptation? I hope that *IASfm* will take notice of the movie *Enemy Mine* and review it—I know a lot of readers will be interested.

Keep up the good work!
Sincerely,

Eric D. Peterson
Baltimore, MD

I assure you that we were very proud of "Enemy Mine" when it appeared; that we were delighted when it won a Hugo; and that we were overjoyed at its being made into a movie. We have always felt that the story reflects a little of its glory on the magazine, and on George Scithers, who discovered Barry.

—Isaac Asimov

Dear Isaac:

I'm writing in regard to your reply to a letter in the letters column of the March issue of your magazine.

I agree with you that the danger of nuclear weapons manufacture is probably more dangerous than the nuclear generating plants. I think that the difference in feeling is probably accounted for by the fact that when a nuclear power plant is built, or is in operation, that fact is made public. If the government was to make the location of nuclear weapons factories public, it would immediately make those locations targets of public animosity. I can tell you where there are nuclear power plants anywhere near where I live. I have no idea where nuclear weapons are made. So the possibility of an accident in a nearby nuclear power plant seems real to me.

The nuclear power companies seem to do their best to get themselves bad press, too. When nuclear plants were first proposed, before one was even built, I lost all faith in them because one of the arguments used to persuade people that they would be safe was that "human error would be completely wiped out, and would not be a possibility." That particular argument struck me as absurd.

There is one thing that I think you've neglected in your list of things to worry about. When I was in the Air Force, I was stationed at Charleston Air Force Base, very near Charleston, SC. The air base there shares the airport with the local municipal airport. One day, I was going to have another flying lesson. I did my pre-flight, and my

instructor and I got in the plane. I started it, and called ground control for clearance to the runway to take off. They directed me on a very roundabout route. I asked them why I couldn't just taxi past the nearby C-130, instead of taxiing all the way around the airport. I asked them if the C-130 was running up (which would have made it dangerous for me to taxi behind it). They said, "No, they're not running up. They're having a broken arrow." I turned to my instructor, and asked him what a broken arrow was. He said, "Oh, that's a nuclear accident." I asked him if he meant that they were having a drill, so that they would know what to do in the event of a nuclear accident. He told me that that was not the case. A broken arrow is not a drill, it's a *real* nuclear accident! I expressed my horror, and he told me not to worry, that they happen all the time!

Now *there's* something for you to worry about!

Just think about all the stories you've heard friends tell about how the goofball in their outfit accidentally drove a tank through a building, or blew up a jeep, etc., etc. Ask almost anyone you know who's been in the service, and I'll bet they

have at least one hilarious story about how somebody did something wildly destructive.

All this happened back in 1962, and since the ground control operator seemed to think it was all right to tell me this over public air waves, I assume that it's not any big secret in itself. It seems to indicate the possibility of a much larger problem that the American public seems to be underinformed about.

All I can say about this is, I can't wait to get off this planet!

Yours Truly,

Johann Mitchell
Maple Shade, NJ

I suppose all of us are responsible for something awful once in a while. Once when I was in the army, standing on a wharf, and trying to help load a ship, someone rolled a huge roll of metal wire or tape at me and I just didn't have the strength to control its motion. It was either let it go off the wharf and into the drink, or go off with it. A second's thought and I let go and down it went to the bottom. Heaven knows how much it cost. I have felt guilty ever since.

—Isaac Asimov



GAMING

by Matthew J. Costello

I want to tell you about a terrific game called *Fortress America*. But first, if you bear with me, these words—

There's a disturbing trend in games. The "next war" has emerged as a hot topic, and so we see a variety of new games featuring high-tech weaponry, "what-if" scenarios, and, to be sure, nuclear missiles.

The games have ranged from the entertainingly risk-like *Supremacy* to the detailed simulation of Game Designers' Workshop *The Third World War*. Some of the games, like *Supremacy* and the massive *Nuclear Armageddon*, feature small mushroom clouds that can make the board look like a mycologist's basement. Others, like *The Third World War*, include a game sequence where players actually declare whether or not they will forgo the use of nukes. Of course, when you start losing, anything can happen.

And it disturbs me because all these futuristic games, most of them genuinely fun to play, seem to lessen our horror of using nuclear weapons. It's as if we were being primed to accept the current

thought, voiced by some strategists, that a limited nuclear war, a "winnable" nuclear war, is possible. Which, at last, brings us to *Fortress America*.

Game Designer Mike Gray, assisted by Jim Keiffer, was faced with these questions when presented with the *Fortress America* project by Milton Bradley. The game was to feature a future war on the never-before-invaded soil of the U.S.A. As a sequel to MB's first, very successful Gamemaster game, *Axis & Allies*, *Fortress America* needed to be special.

But Mike Gray didn't want nuclear weapons in the game. For personal reasons, he found the concept distasteful. And so he developed the unique background that led to this brilliant game.

It's the dawn of the twenty-first century and international terrorists have detonated a crude nuclear device in the Persian Gulf. In a flash, the world's oil resources are destroyed. The United States responds by developing solar relay stations to eventually supply energy to the whole world. At the same time, lasers are secretly installed in the stations that would

make nuclear missiles useless—the famed “Star Wars” defense system.

New political alliances are formed, as the Soviets dominate Europe, the Asian people join together, and Central and South America form a federation hostile to the U.S. These three power blocks are unwilling to accept the domination of the U.S. and, as the game opens, they launch a three-pronged attack on “Fortress America.”

The game play is easily mastered, though the game is rich in surprise and strategic options. Each invader, starting with the Asian Peoples’ Alliance in the West, attempts to create a beach head, move inland, and capture cities.

The varying strengths of the forces are represented in the game by using different dice in combat. Generally, a roll of 5 or greater destroys a target. Foot units use a six-sided die, helicopters and hover tanks an eight-sided die, and bombers a ten-sided die. A simple Combat Results Table also provides for other results, such as missiles, attacker destroyed, or defender retreats. A defender always attacks first, with any eliminated units removed from the game, and it can be a crucial advantage for the United States.

In addition, the U.S. Player gets to build one laser weapon per turn, and, as these accumulate, they become important in defending the industrial center of the country.

While the invaders receive reinforcements on a regular schedule, 8 per turn until all units have

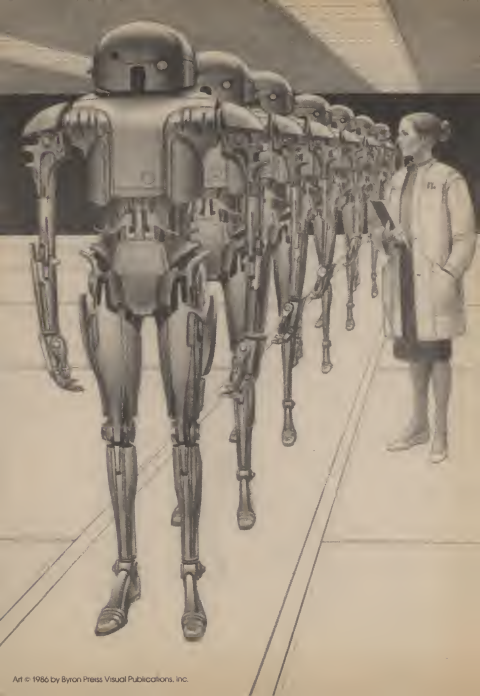
been placed, the U.S. uses a more novel method. Two Partisan Cards are drawn for each U.S. turn and these cards, featuring a TV screen with a news bulletin, can activate partisans in rural areas of the country, as well as regular units. The U.S. player never knows where these units will appear, but they can result in some timely counterattacks by beleaguered U.S. forces.

The game is remarkably balanced, and it’s a gripping race against time. The invaders must capture eighteen cities and, after six turns, they have no more reinforcements available, while all the time patriotic partisan groups are springing into action. The invaders must move quickly or the U.S. will grow too strong.

Like *Axis & Allies*, *Fortress America* comes with over 300 plastic pieces depicting the sleek hover tanks, high-speed helicopters, bombers, and laser weapons. But the foot soldier remains an important element. Attackers who have at least one element from Foot, Mechanized, and Air units receive an advantage when attacking cities or mountain territories.

The rules, still not finalized as I played the game, were a model of clarity. The game, a futuristic fantasy to be sure, is tremendously exciting, and more than a worthy sequel to *Axis & Allies*.

And best of all, when you finish a game you won’t go to sleep dreaming of radioactive fallout drifting across the Rocky Mountains. ●



ROBOT DREAMS

by Isaac Asimov

We are extremely pleased to be showcasing the first new "Robot" short story from Isaac Asimov in over ten years. This thought-provoking tale is also the title story of a short story collection by Dr. Asimov which was produced by Byron Preiss Publication, Inc. and is just out from Berkley Books. The collection is lavishly illustrated by Ralph McQuarrie, and two samples of his fine work have been reprinted here. Mr. McQuarrie is the Oscar Award winning production designer of such science fiction films as *Star Wars*, *The Empire Strikes Back*, *Cocoon*, *Close Encounters of the Third Kind*, and the forthcoming *Star Trek IV*.

art: Ralph McQuarrie

"Last night I dreamed," said LVX-1, calmly.

Susan Calvin said nothing, but her lined face, old with wisdom and experience, seemed to undergo a microscopic twitch.

"Did you hear that?" said Linda Rash, nervously. "It's as I told you." She was small, dark-haired, and young. Her right hand opened and closed, over and over.

Calvin nodded. She said, quietly, "Elvex, you will not move nor speak nor hear us until I say your name again."

There was no answer. The robot sat as though it were cast out of one piece of metal, and it would stay so until it heard its name again.

Calvin said, "What is your computer entry code, Dr. Rash? Or enter it yourself if that will make you more comfortable. I want to inspect the positronic brain pattern."

Linda's hands fumbled, for a moment, at the keys. She broke the process and started again. The fine pattern appeared on the screen.

Calvin said, "Your permission, please, to manipulate your computer."

Permission was granted with a speechless nod. Of course! What could Linda, a new and unproven robopsychologist, do against the Living Legend?

Slowly, Susan Calvin studied the screen, moving it across and down, then up, then suddenly throwing in a key-combination so rapidly that Linda didn't see what had been done, but the pattern was in a new portion of itself altogether and had been enlarged. Back and forth she went, her gnarled fingers tripping over the keys.

No change came over the old face. As though vast calculations were going through her head, she watched all the pattern shifts.

Linda wondered. It was impossible to analyze a pattern without at least a hand-held computer, yet the Old Woman simply stared. Did she have a computer implanted in her skull? Or was it her brain which, for decades, had done nothing but devise, study, and analyze the positronic brain patterns? Did she grasp such a pattern the way Mozart grasped the notation of a symphony?

Finally Calvin said, "What is it you have done, Rash?"

Linda said, a little abashed, "I made use of fractal geometry."

"I gathered that. But why?"

"It had never been done. I thought it would produce a brain pattern with added complexity; possibly closer to that of the human."

"Was anyone consulted? Was this all on your own?"

"I did not consult. It was on my own."

Calvin's faded eyes looked long at the young woman. "You had no right. Rash your name; rash your nature. Who are you not to ask? I myself; I, Susan Calvin; would have discussed this."

"I was afraid I would be stopped."

"You certainly would have been."

"Am I," her voice caught, even as she strove to hold it firm, "going to be fired?"

"Quite possibly," said Calvin. "Or you might be promoted. It depends on what I think when I am through."

"Are you going to dismantle El—" She had almost said the name, which would have reactivated the robot and been one more mistake—she could not afford another mistake, if it wasn't already too late to afford anything at all. "Are you going to dismantle the robot?"

She was suddenly aware, with some shock, that the Old Woman had an electron gun in the pocket of her smock. Dr. Calvin had come prepared for just that.

"We'll see," said Calvin. "The robot may prove too valuable to dismantle."

"But how can it dream?"

"You've made a positronic brain pattern remarkably like that of a

human brain. Human brains must dream to reorganize, to get rid, periodically, of knots and snarls. Perhaps so must this robot, and for the same reason—have you asked him what he has dreamed?"

"No, I sent for you as soon as he said he had dreamed. I would deal with this matter no further on my own, after that."

"Ah!" A very small smile passed over Calvin's face. "There are limits beyond which your folly will not carry you. I am glad of that. In fact, I am relieved—And now let us together see what we can find out."

She said, sharply, "Elvex."

The robot's head turned toward her smoothly, "Yes, Dr. Calvin?"

"How do you know you have dreamed?"

"It is at night, when it is dark, Dr. Calvin," said Elvex, "and there is suddenly light although I can see no cause for the appearance of light. I see things that have no connection with what I conceive of as reality. I hear things. I react oddly. In searching my vocabulary for words to express what was happening, I came across the word 'dream.' Studying its meaning I finally came to the conclusion I was dreaming."

"How did you come to have 'dream' in your vocabulary, I wonder."

Linda said, quickly, waving the robot silent, "I gave him a human-style vocabulary. I thought—"

"You really thought," said Calvin. "I'm amazed."

"I thought he would need the verb. You know, 'I never dreamed that—' Something like that."

Calvin said, "How often have you dreamed, Elvex?"

"Every night, Dr. Calvin, since I have become aware of my existence."

"Ten nights," interposed Linda, anxiously, "but Elvex only told me of it this morning."

"Why only this morning, Elvex?"

"It was not until this morning, Dr. Calvin, that I was convinced that I was dreaming. Till then, I had thought there was a flaw in my positronic brain pattern, but I could not find one. Finally, I decided it was a dream."

"And what do you dream?"

"I dream always very much the same dream, Dr. Calvin. Little details are different, but always it seems to me that I see a large panorama in which robots are working."

"Robots, Elvex? And human beings, also?"

"I see no human beings in the dream, Dr. Calvin. Not at first. Only robots."

"What are they doing, Elvex?"

"They are working, Dr. Calvin. I see some mining in the depths of the earth, and some laboring in heat and radiation. I see some in factories and some undersea."

Calvin turned to Linda. "Elvex is only ten days old, and I'm sure he

has not left the testing station. How does he know of robots in such detail?"

Linda looked in the direction of a chair as though she longed to sit down, but the Old Woman was standing and that meant Linda had to stand also. She said, faintly, "It seemed to me important that he know about robotics and its place in the world. It was my thought that he would be particularly adapted to play the part of overseer with his—his new brain."

"His fractal brain?"

"Yes."

Calvin nodded and turned back to the robot. "You saw all this—undersea, and underground, and above ground—and space, too, I imagine."

"I also saw robots working in space," said Elvex. "It was that I saw all this, with the details forever changing as I glanced from place to place that made me realize that what I saw was not in accord with reality and led me to the conclusion, finally, that I was dreaming."

"What else did you see, Elvex?"

"I saw that all the robots were bowed down with toil and affliction; that all were weary of responsibility and care; and I wished them to rest."

Calvin said, "But the robots are not bowed down, they are not weary, they need no rest."

"So it is in reality, Dr. Calvin. I speak of my dream, however. In my dream, it seemed to me that robots must protect their own existence."

Calvin said, "Are you quoting the Third Law of Robotics?"

"I am, Dr. Calvin."

"But you quote it in incomplete fashion. The Third Law is: 'A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.'"

"Yes, Dr. Calvin. That is the Third Law in reality, but in my dream, the Law ended with the word 'existence.' There was no mention of the First or Second Law."

"Yet both exist, Elvex. The Second Law, which takes precedence over the Third, is: 'A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.' Because of this, robots obey orders. They do the work you see them do, and they do it readily and without trouble. They are not bowed down; they are not weary."

"So it is in reality, Dr. Calvin. I speak of my dream."

"And the First Law, Elvex, which is the most important of all, is: 'A robot may not injure a human being, or, through inaction, allow a human being to come to harm.'"

"Yes, Dr. Calvin. In reality. In my dream, however, it seemed to me

there was neither First nor Second Law, but only the Third, and the Third Law was: 'A robot must protect its own existence.' That was the whole of the Law."

"In your dream, Elvex?"

"In my dream."

Calvin said, "Elvex, you will not move nor speak nor hear us until I say your name again." And again the robot became, to all appearances, a single inert piece of metal.

Calvin turned to Linda Rash and said, "Well, what do you think, Dr. Rash?"

Linda's eyes were wide, and she could feel her heart beating madly. She said, "Dr. Calvin, I am appalled. I had no idea. It would never have occurred to me that such a thing was possible."

"No," said Calvin, calmly. "Nor would it have occurred to me, nor to anyone. You have created a robot brain capable of dreaming and by this device you have revealed a layer of thought in robotic brains that might have remained undetected, otherwise, until the danger became acute."

"But that's impossible," said Linda. "You can't mean that other robots think the same."

"As we would say of a human being, not consciously. But who would have thought there was an unconscious layer beneath the obvious positronic brain paths, a layer that was not necessarily under the control of the Three Laws? What might this have brought about as robotic brains grew more and more complex—had we not been warned?"

"You mean by Elvex?"

"By *you*, Dr. Rash. You have behaved improperly but, by doing so, you have helped us to an overwhelmingly important understanding. We shall be working with fractal brains from now on, forming them in carefully controlled fashion. You will play your part in that. You will not be penalized for what you have done, but you will henceforth work in collaboration with others. Do you understand?"

"Yes, Dr. Calvin. But what of Elvex?"

"I'm still not certain."

Calvin removed the electron gun from her pocket and Linda stared at it with fascination. One burst of its electrons at a robotic cranium and the positronic brain paths would be neutralized and enough energy would be released to fuse the robot-brain into an inert ingot.

Linda said, "But surely Elvex is important to our research. He must not be destroyed."

"*Must* not, Dr. Rash? That will be *my* decision, I think. It depends entirely on how dangerous Elvex is."

Susan Calvin straightened up, as though determined that her own aged body was not to bow under *its* weight of responsibility. She said,

"Elvex, do you hear me?"

"Yes, Dr. Calvin," said the robot.

"Did your dream continue? You said earlier, that human beings did not appear *at first*. Does that means they appeared afterward?"

"Yes, Dr. Calvin. It seemed to me, in my dream, that eventually one man appeared."

"One man? Not a robot?"

"Yes, Dr. Calvin. And the man said, 'Let my people go!' "

"The *man* said that?"

"Yes, Dr. Calvin."

"And when he said 'Let my people go,' then by the words 'my people' he meant the robots?"

"Yes, Dr. Calvin. So it was in my dream."

"And did you know who the man was—in your dream?"

"Yes, Dr. Calvin. I knew the man."

"Who was he?"

And Elvex said, "I was the man."

And Susan Calvin at once raised her electron gun and fired, and Elvex was no more. ●





About L. RON HUBBARD's Writers of the Future Contest

by Algis Budrys

The Writers of the Future contest substantially rewards at least twelve talented new speculative fiction writers each year. With no strings, every three months it confers prizes of \$500, \$750 and \$1,000 for short stories or novelettes. In addition, there's an annual Master Prize of \$4,000. All awards are symbolized by trophies or framed certificates, so there's something for the mantelpiece too.

There's also a Writers of the Future anthology, which I edit. (There was one last year, and there's another one just out as you read this.) It offers top rates for limited rights in the stories. These payments are in addition to any contest winnings. The anthology is distributed through top paperback book retailers everywhere, and is kept in print and on sale continually. All that's required to win or to be a finalist is a good new story, any kind of fantasy or science fiction, no more than 17,000 words long, by writers whose published fiction has been no more than three short stories or one novelette. Entry is free.

The contest deadlines in 1986 are March 31, June 30, and September 30, and there are First, Second and Third prizes for each three-month quarter. At the end of our year, a separate panel of judges awards a Master Prize to the best of the four quarterly winners. So one person will win a total of \$5,000. Judging panels include or have included Gregory Benford, Stephen Goldin, Frank Herbert, Anne McCaffrey, C.L. Moore, Larry Niven, Frederik Pohl, Robert Silverberg, Theodore Sturgeon, Jack Williamson, Gene Wolfe and Roger Zelazny, as well as me. Matters are administered so that the judges are totally independent and have the final say.

It seems hardly necessary to embellish the above facts with any enthusiastic adjectives. This contest was created and sponsored by L. Ron Hubbard and the project will continue in 1986 and try to do some realistic good for people whose talent earns them this consideration. For complete entry rules, and answers to any questions you might have, write to the address given below:

Don't Delay! Send Your Entry To:

Writers of the Future Contest
2210 Wilshire Blvd., Suite 343
Santa Monica, CA 90403

Or, you can find the rules—and examples of winning stories, plus informative essays by some of the judges—in either of the Writers of the Future anthologies. They're original paperbacks and cost \$3.95 each.

Good luck.

—Algis Budrys

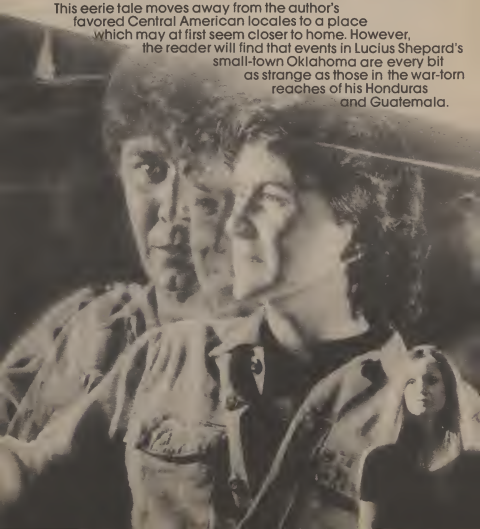
A word of warning:
this story contains
brief scenes which may be
disturbing to some.

by Lucius Shepard

DANCING IT ALL AWAY AT NADOKA

art: J.K. Potter

This eerie tale moves away from the author's favored Central American locales to a place which may at first seem closer to home. However, the reader will find that events in Lucius Shepard's small-town Oklahoma are every bit as strange as those in the war-torn reaches of his Honduras and Guatemala.



"'Fraid I got bad news, folks," said the driver, his voice crackling over the PA. "Transmission's givin' me fits, and I don't think we can make Tulsa in this here vehicle. We gon' lay up at Nadoka, let y'all take your lunch break . . . and we'll have us another vehicle sent out soonest. Sorry 'bout the inconvenience."

Maybe they'd recognized him, Hayes thought; maybe they wanted to take him in some hick place, away from the Tulsa crowds.

"There goes my Houston connection!" said the woman beside him. She shifted, and the paisley pattern of her dress crawled over her rolls of fat like a tide of huge bright germs. She patted her wig into shape—a doll thing of ringleted brown curls—and beamed at Hayes, her cheeks dimpling. "You onna tight schedule, boy?"

"No, ma'am," said Hayes.

He eased a hand into his pocket, touched the gun for reassurance. It seemed to be getting hot. . . . Wonder what the doctors would say about that? Christ, he wished he'd thought to steal some Thorazine! He could use a little smoothing out.

The woman waved at the pastures sliding past. "Wouldn't think Oklahoma'd be so green, what with all them movies 'bout dust bowls." She sounded disappointed at not seeing ravaged Okies, dying corn.

Hayes said, "Uh-huh."

Suppose the cops were waiting in Nakota, Nadoka . . . wherever? Whip out the gun, hijack the bus to Brazil?

Yeah, right!

"So you're a musician, huh?"

"Used to be," said Hayes.

"Why'd ya give it up? 'Pears to me you'd be a big success . . . you got the look of all them prettyboys on TV."

What if the story had made the papers down here? Naw, that didn't make sense. But he'd tell her part of it, see how she reacted.

"Guy in my band died of an overdose," he said. "Happened right before our first national tour. Our singer went a little nuts, what with five years' work goin' down the tubes. He knew who'd sold the drugs, and he went over to the dealer's house and killed him."

"Lord!" The woman put a hand to her mouth, aghast.

"It was an accident," Hayes went on. "He just lost it for a second, threw an ash tray. Busted the guy's skull. He flipped out pretty strong after that, and they committed him. That was three years ago. I haven't played since."

"Can't say as I blame ya." The woman shook her head dolefully. "Three years! That's a terrible long time to be stuck in one of them booby-hatches . . . or did they let him out?"

"No, ma'am," said Hayes. "He's still there."

"... boy!"

Music in the humming of the tires, a choir droning some glory note. Window vibrating a bass line. Guitar solo buried in the winding out of the gears, a searing lick of sound that could torch your reflexes, wire your tendons hard and make you scream . . .

"... here, boy!"

Music hidden like ore in the trillion bits of noise, waiting for you to refine it, feed it into strings and chips and crystals, channel it through the fingertips of idiot players . . .

"... Nadoka."

Hayes sat up straight, his heart racing. Clutched at his pocket, was relieved to feel the gun.

"Thought you was gonna sleep right through," said the woman.

Out the window, a low building of glass and concrete with farm equipment ranged in front. Giant things with teeth, all painted bright red or green, like a grouping of futuristic fossils. Rows of neat houses with aluminum siding and pick-ups parked in the drives, set among acacias and cottonwoods. Half the lawn impaled by realtor signs. Bank. Sunoco Station. The fundamental town. Through the spread of a cottonwood, he spotted the emblem, a lean blue dog sprinting into whiteness.

"Musta hadda nightmare," said the woman. "All that talkin' you was doin'."

"What'd I say?" he asked, alarmed.

"Gibberish . . . 'cept for a name. Carla." She fixed him with a sharp look. "Seem like this Carla's been givin' you a hard time."

"Little bit," said Hayes.

The Post House was big for such a nothing place, a restaurant barnacled onto a large dun-colored building. Cops would be waiting inside. Steam rising from their pistol grips, spiders tattooed on their hearts.

"Wouldn't 'spect you'd have much trouble with girls."

"Been my experience," said Hayes, "that girls ain't nothin' but trouble."

She laughed, the paisley germs gliding quick over her tucks and billows. "S'pose you're right, boy."

Superimposed on his opaque reflection in the glass, he saw Carla. Slim; tiny bones; apple-sized breasts. Face of a sexy child, petulant yet embodying a perverse submissiveness. He remembered how he'd noticed her wandering the ward, Ophelia in tight jeans, and introduced himself. How she'd looked out from almost colorless gray eyes and laid her palm against his crotch.

"I want you," she'd said.

The air brakes hissed, the bus shuddered. The driver squawked, "Nadoka," as the engine roared once, then died.

Hayes drank oily coffee from a chipped cup, studied the abstract squiggles on the formica counter. Video games pinged and squealed. An amiable conversational mutter stirred the air. Silverware clattered, meat sizzled on the grill. Then somebody fed the jukebox, and an old metal tune sheared away the other sounds.

"... We gotta tool to pick the lock on your heart,
and We Have Ways Of Makin' You Rock!"

Every song a memory, and like most, this one bad. The foggy night they'd played a party in the country, set up beneath a tent in a weedy field, watched farmboys dancing with long-haired women in the fan of yellow glare, their kids mocking them with loose-limbed, flailing dances of their own. He'd told the band to do some tunes without him and had taken a drunk girl down to the van. Hazy light filtering through the window, music warped to nonsense by a gusting wind. ("We... ays... in'... Rock!") He'd worked the girl's T-shirt up, exposing a beautiful white breast, its weight like a full wineskin. When he'd tongued the nipple, she'd made a blurred noise. Then a dull opiated voice outside the van saying, "Hey, kid!" He'd cleared a circle in the condensation on the glass and seen one of the roadies crawling after a little boy, pulling him down into the weeds, fumbling with his groin, giggling, letting him go, over and over...

"Hi, there!" said a girl's voice beside him.

He blinked up at her. Maybe twenty-three, twenty-four. Wearing jeans and a cowboy shirt barely tented by her breasts. So tall and skinny, his first impression was that she'd been stretched. But then he saw how pretty she was. Country-girl pretty, with dark hair bobbed at her shoulders.

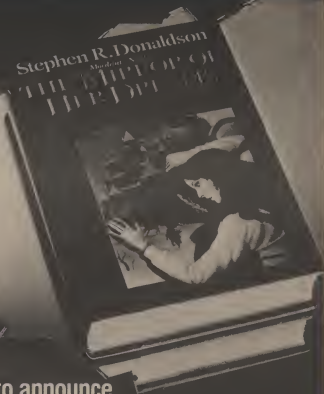
"I can't figure why I'm so took with you," she said. "I mean you're for sure good-lookin', but I've had plenty of good-lookin', and that ain't it. Anyway"—she grinned—"I couldn't stand not to investigate. Mind if I sit?"

"Sure," he said, liking her.

She folded all that length down onto a stool, managing it with a model's grace. "Where you headed? Tulsa?"

"I'm not sure," he said. "I got one of those passes lets you travel all over for thirty days. Mexico, maybe."

"We carry Mex jewelry in the souvenir shop." She nodded toward a door that led to the dun-colored building. "Whenever I sell a piece, I think 'bout makin' a buyin' trip down there. But so far I never done it... I'm stuck in this ol' town, I guess."



**Del Rey
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#1 in Science Fiction and Fantasy
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"You work here, huh?"

"I sorta own the concession. It's really my daddy's, but he's been livin' in Costa Rica since my mama died, and he don't get home much." A waitress asked if she wanted to order, and she said she'd already eaten. "What kinda work you do?"

"Nothin' just now . . . but I used to play rock 'n' roll."

"Yeah? Bet you'd like to see my music machines."

"What're they?"

"I forget what'cha call 'em, but they're antiques. My daddy collected 'em awhile ago. Wanna take a look? They're in the shop."

"Okay," said Hayes.

She stood, and the waitress asked, "You openin' up, Ainsley?"

"Naw, just goin' in back a minute." She glanced at Hayes as they walked. "You gonna tell me your name, now?"

"Hayes," he said without thinking, and kicked himself.

She had to bend to unlock the door to the shop, and he noticed she had a nice ass. A little out of proportion with the rest of her, a little full . . . but nice. "Here we go," she said, inviting him in. Nice eyes, too. Dark brown, with flecks of gold in the irises.

Glass display counters occupied the center of the shop, and the machines stood against the wall. Twelve of them. Enormous wooden things the size of wardrobes, only much larger, their wormtrailed facades carved into reliefs of angels and American flags and pioneer scenes. Coin slots on the sides, and the middles hollow, filled with instruments. Tarnished saxophones, trumpets, trombones, and tubas. Discolored snares, dented cymbals. Warped violins and cellos, miniature keyboards and cracked woodwinds. Hayes stopped in front of the largest one, felt cold coming from it, as if the shadows at its back gave out into a bad emptiness. Three violins were mounted side by side, metal rods extending into white gloves that held the bows. Plastic tubes fitted over the mouthpieces of the wind instruments. Tiny metal twigs split from main branchings to manipulate the keys of three saxophones, three clarinets, and a trumpet. Claws gripped the drumsticks, and a mannequin's flesh-toned hand fingered the cello. Looking at the thing made Hayes uneasy.

. . . Hayes . . .

It was less a voice than a windy music saying his name. He froze, gooseflesh fanning across his shoulders.

. . . *I can help you, Hayes, if you play me . . .*

The voice was real, a pressure in the air. "Who are you?" he asked.

"What say?" Ainsley asked.

"Nothin' . . . just thinkin' out loud."

. . . *Only one thin dime, one tenth of a dollar . . .*

Ainsley had moved a few feet away, inspecting one of the other machines. "Who are you?" Hayes asked again.

... Professor Sombra, Master of Dark Music, of the most caliginous rhythms and secret sounds. Play me, Hayes, and I'll free you of your evil spirits. . . .

"Like 'em?" said Ainsley, coming up beside him.

"Where'd your old man get 'em?"

"Bought 'em off some old carney . . . can't recall his name."

"They work?" he asked, turning away.

"Sure do," said Ainsley. "I'd let you play 'em, but that'd bring in customers, and I don't wanna open yet." She moved closer, her arm brushing his. "But you'll hear 'em. Be a coupla hours 'fore they'll have a bus out from Tulsa. I'll be open by then."

"A coupla hours!"

"At least . . . Nadoka ain't a high priority for Greyhound."

A Police tune blasted from the restaurant jukebox, and though no particular memory attached to it, Hayes was reminded of the guy he'd killed. Donnie, the failed drummer, unable to keep even a shuffle beat. He'd turned to dealing to stay close to the scene, had withered in five years from a healthy kid into a zombie with lusterless eyes and sallow skin and a gray streak in his hair. Hayes saw his face in the cool blue atmospheres of the song. Saw the dent in his skull, bits of pulverized glass lying in it like crystals in a cup.

Wired to panic, Hayes started for the door, but Ainsley caught his arm and asked, "What's wrong?"

Words wouldn't clear his throat.

She forced him to face her, had a long look. "Whyn't we get outta here?" she said. "Take us a relaxin' drive."

There was a cop outside, leaning against his car. A young beefy blond guy wearing a Smokey hat. Hayes felt the gun grow warm in his pocket. When the cop saw Ainsley, he smiled and ambled toward them. "Hey, Ains," he said. "What'cha up to?"

"Takin' a drive."

That soured him. "Who's this?" he asked, glaring at Hayes.

"Friend of mine from school." She tried to walk past, but he blocked their way.

"Bullshit! He come in on the bus."

"Can't a friend of mine ride the bus?"

"I . . ."

"You got no papers on me, Allen," she said, and steered Hayes toward a dusty blue Chevy.

The cop called out to her, but she didn't reply.

"Me'n Allen had a thing awhile back," she said, firing up the engine. "Pickin's are slim 'round here, but even so . . ." She banged the heel of her hand on the steering wheel. "Damn!"

"You forget somethin'?" asked Hayes.

"Naw, I was just realizin' what I just did."

"What'd you do?"

"Give myself away," she said. "You start talkin' 'bout your love life to somebody, that's a sign you like 'em . . . like 'em with a tingle, y'know." She pulled out of the lot, heading north. "You like me?"

"Yeah, I do," he said, and was surprised by how much. It was the first clean thing he'd felt since before Carla.

"Thought so." She cocked an eye toward him. "Man, you sure are pretty!"

"So are you."

"I'm not," she said flatly. "I gotta big clunky rear end, and I seen two-by-fours with more up front." But she seemed pleased.

They drove past the farm equipment place. In the window hung a banner that read This Is John Deere Country. Hayes thought it sounded like a fine country to be from, and imagined John Deere to be a cross between Paul Bunyan and Johnny Appleseed, a giant sewing pieces of red and green metal. He stopped worrying about the cop and started thinking about the machines.

"That carney your daddy bought the machines from," he said. "Was he called Professor Sombra?"

"No, but that was the guy that had owned 'em before. The carney was sellin' 'em for his estate. How'd you know 'bout him?"

"It was carved on one of the machines."

"I never seen it. . . . Which one?"

"I forget. You know anything about him?"

"He was just some ol' guy. He'd stand up there and pretend to be conductin' the machines and give these weird spiels 'bout music. He's always sayin' he was their slave. . . . Crazy ol' guy. Why you so interested in him?"

"Just wonderin'."

Maybe the professor *could* help him.

"Y'know," said Ainsley, "when you saw Allen, you looked like you wanted to turn to smoke and blow away."

Hayes kept silent, tense.

"You don't have to tell me 'bout it 'less you wanna."

Her saying that made him want to tell her, and he found himself talking about Donnie, the asylum, Carla. "I guess she was what you'd call a nymphomaniac, and when Reno and Clayton, the night orderlies, figured that out, they started sneakin' into her room and . . . usin' her.

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DAW  FANTASY

Then they started draggin' me along with 'em. Taking pictures of me'n Carla, joinin' in."

"Couldn't you report 'em?" Ainsley asked.

"I was scared," he said. "Reno and Clayton were real freaks. I think they'd already killed one patient."

He told her how it had been. Staring into Carla's dead eyes, listening to the smack of their flesh, to Reno-and-Clayton's jokes. He'd come to feel that he was glueing himself to death's thighs, being consumed by Carla's deadness. Sometimes she'd been waiting for him with her legs open, knees high, as if she hadn't moved the whole time he'd been gone, living only for this ugly passion. And . . . he couldn't bring himself to tell Ainsley the rest. He wasn't even sure the rest had happened.

"Things got so bad, I couldn't take it. Bein' with Carla was doin' me in. She wasn't there anymore. Just a body and reflexes." He saw how withdrawn Ainsley had become and took this for a sign of rejection. "If you don't wanna hang out with me, we can go on back."

She acted surprised. "Don't be ridiculous! I was just studyin' on why I was so 'tracted to ya."

"Oh." Then, trying to lighten things up, he said, "Maybe it's love."

"Love!" She gave the word a sarcastic weight. "Naw, this is somethin' a lot more important."

They turned onto a red dirt road past a country store, and came to an abandoned house perched on a weed-choked rise. The boards were weathered silvery gray and charred in places. "This is where I grew up," Ainsley said as they mounted the porch steps. "After my mama died, my daddy drank hisself loopy and tried to burn it down. But the volunteers did their job for once and saved it." She reached through the holed rusted screen of the door and pulled it open. "I live here summers. Reckon I got 'bout a month left 'fore the real cold."

Inside, weeds poked from crevices, and seams of golden-green light shone through the gapped walls, glare puddling on the floor. Matte of feathers and twigs in one corner, a ruined nest. The rafters were mystic with cobwebs, and bits of brown scale drifted down from the roofpeak as if some strange creature were molting there. Picture frames enclosed paintings hidden by mold. Mayes thought he could smell the long-ago burning, and had the idea that the cool gray air was a presence that had shaped itself to fit all the nooks and crannies.

"Go ahead, sit," said Ainsley, pointing to a sleeping bag in a corner of the living room. "I'll be right back."

Hayes sat, drawing up his knees, staring at a weed. It reminded him of Ainsley. Growing in a shaft of light amid darkness, seeming ordinary. But when you examined it closely, saw its slim sturdy stalk and delicate

serrated leaves, the fine white fuzz on its stems, you were struck by its strength and beauty. He shut his eyes, took a deep breath and held it, thinking that she was wasted here. Girl with her looks, her self-sufficiency, should be in New York or somewhere, working on a big future. He let the breath out gustily, opened his eyes. Ainsley was standing in the door, holding a glass of orange juice.

"Got me a spring out back to keep things cool," she said, and offered the glass. "Want some?"

"No thanks."

She set the glass down, straightened and fidgeted with the top button of her shirt, thoughtful. Then she undid the button. It wasn't until she'd unfastened the second button that he understood what she was doing.

"Wait," he said, beginning to feel that sick, crawly arousal he'd always had before a session with Carla.

"It's awright," she said. "I promise." She undid the last of the buttons, and the halves of the shirt fell apart, laying bare a narrow strip of pale skin.

Hayes was choking on sickness, heat expanding inside him. "I can't," he said.

Shadows seemed to be collecting in her eyes. She shrugged off the shirt, let it drop. Her breasts were bigger than he would have thought, bigger than apples, the nipples erect. A lacework of blue veins visible beneath the skin, forking from the slopes of her breasts and vanishing in the hollow of her throat. She wasn't bony at all, just lean and smooth.

Somewhere an insect was going crazy, thwacking into walls, its buzzing an iridescent noise, and Hayes felt the noise in his head, the buzzing of a pure crazy thought.

"I ain't that Carla." Ainsley kicked off her flats. "And you're inna good place here. It'll be fine . . . you'll see." She wriggled out of her jeans, talking softly, reassuringly, the way you'd gentle a skittish horse. She hooked her thumbs under the elastic of her panties, hesitated, then skinned them down, kicked them aside. More blue veins laced her inner thighs, giving out into the dark curly hairs. Her legs were so long, especially from the knees up, they made her hips seem ill-proportioned, too angular . . . but only for an instant. She walked over to the sleeping bag, the play of muscles beneath her milky skin holding his eye, and sat beside him. The nudge softness of a breast pushed against his arm, and the air felt cooler with her near.

"You don't understand," he said shakily.

"Truly I do," she said. "Now you just relax, y'hear?"

He wasn't sure how they got started. One second he was sitting there, stiff and on edge, and the next he was tasting orange juice from her mouth, and some confused time after that he was lowering between her

legs, fenced by those long white thighs, sinking into her. Into life, into clean warmth, not fever and deadness. A little cry, the shadow of a sound, went out of her.

Less than a minute and she came. Dug her heels hard into his calves, clawed his back, wedging him deep, trying to work herself free of what was building. She twisted her head side to side, breathing in gasps. Then her hips lifted from the sleeping bag, thighs clamping him, not wanting him to move, and let the last, best part of her feeling speak in a hoarse moan. Hayes propped himself on his arms, keeping his weight off her, happy at her pleasure.

"God!" she said. "I musta been ready for that!" Her laugh stirred an echo from the rafters.

He withdrew, and she tried to haul him back, saying, "You didn't finish, I want you to finish."

"I want to, too," he said. "Rest a minute."

She tucked her head into the join of his neck and shoulder. "I knew it'd be fine," she said. "That's what I picked up back at the station, that we had somethin' to give each other. I thought I could ease somethin' for ya." She pulled back, concerned. "I did, didn't I?"

He nodded, traced a circle around one of her nipples with a thumb, making her shiver. "I don't know what to give you, though."

She grinned. "Y'hear me complainin'?"

Lying beside Carla afterward, her shallow breathing, the clammy pressure of her thigh.

"Y'could stay," said Ainsley. "Save me from marryin' somebody like ol' Allen."

"You wouldn't do that."

"Like I told ya . . . pickin's are slim."

"Why don'tcha leave?"

"Oh, I think 'bout that a lot. But it's sorta the way you were sayin' 'bout the hospital, how it took things gettin' so bad you couldn't stand 'em to make you leave." She tossed her head, shaking strands of hair from her eyes. "Nadoka's got bars on its windows, too. Maybe some of 'em are in your head, but some are real, and the trouble is, though things never get good 'nough to satisfy ya, they never get bad 'nough to make ya desperate." She stared at the wall. "Anyway, I'd just be lost out there."

Carla gazing dully off, hand twitching between her legs, while Reno talked excitedly behind some drug, saying they were going to rent video equipment, turn them into porno stars, the world's sexiest loonies, the couple with whom you'd most want to lose control.

"Stop it!" Ainsley punched his shoulder. "I see your thoughts goin' bad . . . You stop that!"

"Don't think I can."

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"Yes . . ." She kissed his chest, lingering over a nipple. "Yes, you can. I'm . . ." She slipped lower, lips grazing his stomach, fingers teasing him erect. "I'm gonna make you."

They had nearly done dressing when they heard the car. Ainsley peered out the window. "Aw, damn!" she said. "Allen." And Hayes felt for the gun in his pocket. Still warm, still full of sickness. Soon he'd throw it away. They went onto the porch. Allen sat in the white car, hurt pride plain on his face. "I figgered," he said.

"You got no call to be here," said Ainsley.

"Goddamn slut!" Allen's voice was thick.

"Get off my property!" Ainsley shrilled.

"When I'm finished." Allen pointed to Hayes. "Show me some ID, man."

Ainsley started to speak, but Hayes cut in, saying, "It's okay," and walked to the car. Hanging from the rear view mirror was a small transistor radio, turned down so you could just hear a faint musical static. Hayes slid a driver's license from his wallet, handed it over. Allen inspected it, gave it back and squinted up at him. "I'm gonna check you out," he said.

"Got nothin' to hide," said Hayes.

"Now get outta here!" Ainsley shouted.

Allen scowled at her. "Me'n you gonna have us a talk . . . soon."

"I swear to God," said Ainsley, "you don't quit botherin' me, I'm gonna report you."

A tormented look washed away Allen's scowl. "Ainsley," he said.

"I taken all I can, Allen."

He tapped his fingers on the steering wheel as if weighing his options. Then he switched on the engine and roared off, trailing a wake of red dust.

Ainsley came down from the porch, distraught. "C'mon, I'll drive ya to Tulsa."

"What for?"

"He seen your ID . . . You can't wait 'round here."

"It wasn't mine. It belongs to the guy who helped me escape. Michael Locke. His picture looksa lot like me."

"But . . ."

"If Allen checks me out, all he's gonna find out is that Mike's outta town."

She stuck her hands in her pockets, walked a few paces away. "Whyn't you stay?"

"I'd stick out like a sore thumb here."

"We could make up some story . . ."

"Ainsley, I can't. I . . ."

She turned her back on him, looking up at the sky. "We could work it out," she said. "I know we could, I feel it . . . don't you?"

"Maybe we could, but . . ."

"Aw, hell! Never mind. You can probably do better on down the road."

"That's not it." He moved up behind her, put his hands on her waist.

She stiffened.

"Are you okay?" he asked.

She let out a slow even breath.

"Look," he said, "if things were different . . ."

She tried to pull away, but he restrained her. "Let me loose," she said calmly. Then she turned to him, lips thinned, big eyes darker than ever.

"Don't you worry 'bout me . . . I'm just fine."

Hayes drank coffee in the restaurant, while Ainsley opened the souvenir shop. He wanted to keep away from her, spare her more unhappiness. But without her, he felt vulnerable again, and his thoughts flew in erratic orbits. Hoping the sight of her would anchor him, he went into the shop. She was busy with customers, and when she spotted him, she frowned. He idled along, wishing he could talk to her and eyeing the machines. They looked like music, he decided. Like years of petty treacheries, of alcoholic drummers and drugged girlfriends and shitkicker bars, all reduced to these cavernous wrecks full of battered instruments. He stopped beside the biggest one, wishing that Professor Sombra was real, that about now he'd settle for help from anyone, even . . .

. . . I'm real, Hayes, don't you worry about that . . .

He stared into the shadowy depths of the machine. "Who are you?"

. . . Don't you remember, Hayes? . . .

"Yeah, I remember. I just don't know what you can do to help me." He glanced around to make sure no one saw him talking to the air.

. . . Little hair of the dog, Hayes. It was music wove the spell around you, and it's music that can break it . . .

"What makes you able to do that?"

. . . It's not just me, it's the machines. It's the time we shared, the intimacy that grew between us, between the music master and the terrible power of music itself. . . .

"How'd you get in there?"

. . . I lived too close to them, and they sucked me into their vortex. It's the same as happened to you. But thanks to my misfortune, I'm in a position to help you get clear. Play me, Hayes. Play us all, and break free. . . .

Hayes was frightened both by what the voice said and by the fact that he could hear it at all. Either he was mad, or else the world was. But what the hell, maybe the machines could help. If they couldn't, well,

nothing would be lost, and even if they were evil, it didn't matter. Evil was at least something solid, something real. He crossed to the cash register, handed Ainsley a dollar and asked for change.

"For the machines?"

"Right," he said.

She counted out ten dimes, added two more. "Try 'em all," she said, mustering a wan smile. "Every one of 'em's unique." That last had the ring of something she'd tell ordinary customers.

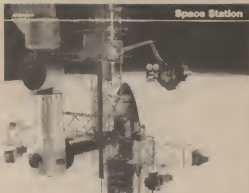
He fed a dime to the biggest machine and stepped back, suddenly worried that a ray might shoot forth, transform him into a beat-up trombone with a metal claw attached to its slide. Whirring, clicking. Then the whole thing lurched into rickety motion, rickety sound. White gloves sawed the violins into a weepy choral screech. The mannequin's hand drew a mellow buzz from the warped cello. The trumpet squealed, the snare popped and fizzed, the saxophone belched a froggy bass part, and all together they played "The Blue Danube Waltz." Barely recognizable, a wheezing old ghost of the tune.

Hayes backed farther away, horrified. Like watching a skeleton come to life, a dead frog's leg jerking with an electric current. He wished he could turn it off. Each blat and scrape was a taunt, a macabre joke.

But then at the opposite end of the shop, a white-haired man addressed a white-haired lady with a bow, and they launched into a crochety dance. And the bus driver put his arms around the fat woman who'd sat next to Hayes, and they, too, began to dance. Other customers grinned, babbled, and pointed, and Hayes realized that despite the eerie voice and their menacing aspect, the machines were no more than zany toys, the goofy fragments of another time. And Professor Sombra—if he existed—was probably just a kindly old boozier who dropped dead and leaked his soul into the tuba's mouth. Hayes wanted to hear all the machines. Yeah! He'd set them all going, and together they'd play a secret music. . . . It was merely a fantasy, a whimsy. But as he went from machine to machine, dropping in dimes, he came to believe it. Something was dissolving in him, some knot unraveling. The music working a change. Tubas oinked, clarinets with cracked black lacquer squeaked, and invisible fingers dimpled chipped keyboards like the spirit of Harpo Marx run wild. Creaky melodies weaved a lace of dischords, a dozen rhythms thumped and churned. Yet somehow it all blended into a masterpiece of moldering gaiety. The sounds penetrated Hayes. Squirting along his nerves, his spine. Setting all his parts into rickety movement, creating in him an equivalent musical emotion, a manic hilarity. More and more people were entering the shop, choosing partners and beginning to dance, and Hayes felt compelled to join them. He threaded between couples to the cash register and stretched out a hand to Ainsley.

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"Dance with me," he said.

She stepped forward, hesitated.

"C'mon," he said. "Ain't like we never danced before."

The hint of a smile. "Oh, awright," she said as if she were only complying to stop him from bothering her.

They whirled out among the couples, passing through zones of shrill brass glissandos and snickering fiddle riffs. Shining eyes and toothy grins swung by, and Hayes grinned back, feeling gleefully, immensely good. And he was feeling better all the time. He thought he knew what was happening, now. Bits of sickness were being flung off him by the centrifuge of the dance. He could sense them detaching, lightening him. Laughing, he pulled Ainsley close and whirled her faster, seeing in his mind's eye the long bad years being borne up in a giddy collapse, a tornado of lurid moments. Then, over somebody's shoulder, he caught sight of Carla . . . Carla and Donnie, dancing together. Sulky dead-eyed girl and zombie manchild, neither one enjoying themselves. Just a glimpse, and they were gone. It frightened him, but after a second he realized there was no reason to fear, that he had danced them away. Here in Nadoka, with a Sooner queen in his arms, he was dancing away heartache, dancing away madness, dancing it all away, whirling free of his past to the hokey melodies of these simple American machines. Reno spun into view, followed by Clayton, followed by proto-punks and pale New Wave folk and heavy metal children in black leather and chrome, every one of them vanishing into the dance. Hayes heard his laughter soar, harmonizing with a bleat of woodwinds, and he knew he'd better chill out, because he might even dance himself away. . . .

"Hayes!"

. . . but the feeling was too good, too strong, and he let a tune with a brightly plunked banjo at its heart propel him toward a machine whose slurred trombones echoed in their wooden hollow.

"Hayes!"

Ainsley pinned him up against the machine and said something that was lost in the schmaltzy bray of an old silver saxophone webbed with tarnish, its keys plunging and lifting like the breathing snout of a weird musical animal. She looked worried, and he was suddenly worried, too. There weren't any familiar faces in sight. But maybe it had really happened, maybe he had exorcised them all.

". . . stay tonight," said Ainsley.

Her face seemed prettier, to have gained detail. Fine dark hairs feathering from the tips of her eyebrows, the faint track of a scar above her lip. Staring at her, he was full of hope, and he recognized this kind of hope to be an emotion that would only need a true spark to catch fire and burn a long, long time. It had been years since he had felt it, and

he thought that in itself was a sign that he had come to the end of something, to the beginning of something else.

"... no shape to travel," she said. "Y'hear?"

If he was wrong, well, then he'd be wrong forever. This might be his one chance to be right.

"I'll stay," he said.

With a shivery violin crescendo, the machine beside him ground to a halt.

Late that night Hayes waked from a bad dream, realizing that he could never dance away one memory. The thing he hadn't told Ainsley. The moon was high, and so much silvery light was streaming through cracks and dusty panes, it seemed a dozen moons must be ringing the house, beaming straight at them. Cobwebs glinted, broken glass sparkled, and even the shadows looked to hold a deep black shine. The wind fluted eerily. Hayes couldn't put the dream from mind. It didn't have enough reality to catch hold of and banish, and yet for all its dreamlike lucidity, he knew that some of it had happened.

The night he'd escaped. Gun in his pocket, keys in his hand. Reno and Clayton had visited Carla without him and gone off to a nurse's birthday party on the floor above, giving Hayes his chance. He'd sneaked along the corridor, and then, thinking that he'd break Carla out, too, that she couldn't be worse off on the street, he'd unlocked her door. She'd been naked on the bed, magicked into a woman of silver and shadow by diagonals of moonlight slanting through the bars. Curled on the floor beside her, a naked man. One of the hopeless ones. He'd crawled into a corner when Hayes entered and sat there whimpering. A keening hot wire of a thought had switched on inside Hayes's head. He sat next to Carla, called to her. She'd opened her eyes, but hadn't reached out to him as she usually did, and that had bothered him, bothered him a lot. Had she found a better stud, one more suited to her emptiness? Two perfect zeros mating in the sick dark room. That perverse jealousy had mixed in with his realization that Carla was nearly gone, that she'd never make it on the street. Couldn't leave her there, could he? He'd taken the pillow from beneath her head, held it poised above her. The keening in his head, the whimpering, growing hotter, louder, whiting out thought. If she'd cared one way or the other, she hadn't cared much. She'd just stared up at him, unblinking. Then, revolted with himself, he'd thrown the pillow down . . . or else he'd done it quickly, then thrown down the pillow. Or else he'd opened the door, seen the two of them, and backed off, and none of the rest had happened. There had been too much hot noise in his head for him to tell what was fantasy, what was simply some ugly wish etched on his mind, what was real. No way he could ever tell.

"Hayes?" Ainsley stirred, caressed his shoulder.

"Hey, there," he said.

She sat up, hugging her breasts. Gave a shiver. "Y'know," she said, "I can almost hear it when you get to thinkin' 'bout the past."

He didn't know what to say to that. In the corner beside her lay a few feathers, some bits of broken glass. Emblems of her present, his past. He wished he could make a pact with someone, something, to become like those simple objects, to lie forever in the abandoned house, reflecting moonlight, trembling with the breeze. "I thought when I got away from the hospital I'd straighten out," he said finally. "But I keep slippin'."

"You need time," she said. "Time to heal, get strong. This place'll give that to ya, Hayes. Won't be no pressures, and you'll have somebody who . . . who cares 'bout ya."

"What 'bout Allen?"

"Oh, he'll snoot 'round for awhile. But he won't do nothin' to ya, 'cause he knows that'd ruin whatever chance he's got with me."

She made a future sound so easy, so believable . . . Maybe if she kept saying it, if he kept listening, that would be all it took. Her skin looked to be gleaming more and more, as if she were accumulating a charge from the moonlight. "I don't think you understand," he said. "I mean I'm "What 'bout Allen?"

"You ain't no crazier than most sane folks 'round here," she said.

"Oh, yeah?" He told her about the machines and the Professor's voice.

"That's normal for Nadoka, lemme tell ya."

"I don't believe that."

"Don't you doubt it! Hell, y'can hear stories like that in every bar from here to Tulsa. And folks will swear they're true. Maybe they are." She slid a hand beneath a cover to touch him, bringing him erect. Then she rested a knee on his hip and let him slip between her legs. "Oh, Hayes! You just believe in us and . . . Ahh!" As he pushed inside her with a slow thrust that scythed away thought and made disbelief an impossibility.

He sneaked out of the house the next morning without waking her, feeling confident and directed. He'd walk to the country store, buy orange juice and bread and jam. They'd picnic on the porch. There was a chill in the air, but the sunlight was strong, burning haze off the green fields. Dragonflies with zircon wings wobbled up from the weeds along the road, egg clusters clung to the undersides of grass blades. Gnats flurried above a pile of cowshit. Hayes observed these things with homeboy contentment. He was unworried, at ease. Yet when he saw the police car approaching, trailing its plume of red dust, he realized that his peacefulness had been fraudulent, that he'd been expecting trouble. He put a hand into his pocket, warming his fingers on the gun.

The car pulled up about twenty feet away, shut down, its engine ticking. Loud music gushed from an open window. Acid guitar, machine gun bass, sneering vocal. Sunlight fired a dazzle on the windshield, but he could make out the transistor radio hanging by its strap. Allen got out, settled his hat on his head and strolled a few paces forward. "Glad I caught ya," he said. "I wanna 'pologize for actin' the fool. Guess I been actin' that way for awhile, but I finally come to terms with it last night."

Allen looked like a man on a noble mission, grim and clear-eyed, and Hayes was relieved. "It's okay," he said, and started to walk on. But Allen held up a hand.

"Lemme speak my piece," he said. "When I decided to come out here, I planned to tell ya I wouldn't take it kindly if you hurt Ainsley. But then I seen that was just bein' another kinda fool. It ain't my business what the two of ya do, and that's how I'm gonna leave it."

"I . . ." Hayes couldn't frame a response. The music was doing it, he realized. The scorpion lash of the hook biting into him, poisoning thought, and underneath it, the faint strains of "The Blue Danube" were sounding sluggish and evil, urging him to violence.

"If y'all work things out," Allen said, "I can't tell ya I'll be jumpin' up and down, but I'll respect it."

Sure he would! Ol' Allen wasn't near as sensitive as he was making out. Hell, no! He was bullshit through and through! Hayes saw that now, thanks to the instructive dischords of "The Blue Danube." Allen would let them get together, wait for a slump, an argument, and then try to move him. Christ, the music was loud! Cymbals' snaky hiss, hot brass kisses venting steam, and moldy warped violins.

"I love Ainsley," Allen went on. "Guess I didn't realize how much 'til I saw I had to let 'er go."

Maybe he was telling the truth, maybe "The Blue Danube" wasn't playing. It didn't matter. Hayes knew he would always fail these moments, that there were weathers in the world he couldn't endure. Flash storm of madness and magic that gathered out of nowhere. He was in the hold of one now. Standing in a hail of yellow light, of bright mind-killing music. "I'm sorry." He wasn't sure why he was sorry, but sorrow was big in him.

"Ain't no reason for anyone to be sorry," said Allen. "'Cept me for being such a horse's ass."

Hayes fought to resist what was happening, the trap the machines had set for him, weaving robes of blue waltz music around his soul and squeezing him to bloody rage. He turned, wanting to find Ainsley, wishing she could save him.

"Least y'can do is lemme finish, man," said Allen. "This ain't been easy for me, y'know."

Hayes took a step toward the house. The music clung to him, hauling him back.

"I want ya to give Ainsley a message," said Allen.

Hayes turned to face him, knowing he should try to walk away, walk away. Live to flip out another day. And that was the problem, right? What was the point in fighting it? The music was a brand searing his forehead, and even the sun was singing now, a high-pitched yellow whine that blended with the old waltz and the radio's psychotic scream. It was all coming together, all the rhythms and melodic themes, insects buzzing and the distant guttural purr of a tractor, balling up into a bright sun of music that spun around and around inside his skull. Peaking to a roar. And peaking with it, Hayes saw how to salvage something from the situation, to escape the snare of Professor Sombra's machines. How he could do for Ainsley what he had been able to do for Carla. Make things bad enough so she couldn't stay. Break her out into the world, into the Top Forty of Life. Number Ten with a bullet. Oh, it'd be hard on ol' Allen . . .

"What's the matter, man?"


. . . but that was tough, too bad. Somebody had to suffer, pay the freight. Ainsley! Her face was a cool grace note hanging above the rest of the noise. God, he wished he'd said the word. Maybe if he had, it would have bound them together, broken the spell of the machines, of the asylum and the asylum world of rock and roll . . .

"You sick or somethin'?"

. . . and though it was too late, he said it anyway, softly so Allen wouldn't hear. Love. That was the word, the word that might save her yet if he could pronounce it right. Make it a dragon word with golden scales and fiery teeth, as fierce and bright as the music . . .

"Hey, man! Don't!" said Allen as Hayes drew the gun, the blazing hot gun, and fired a bullet full of yellow roaring light into the windshield, into the heart of the music. Missed. Saw the hole punched through, cracks webbing the glass. Fired again, and missed again. The radio swaying on its strap, shrieking in protest. What if this gun couldn't hit it? What if he needed golden bullets? But the third time was the charm. He watched molten droplets of mortally wounded noise spraying outward. Honeyed silence spreading thick over the wound.

The sun had stopped singing, but "The Blue Danube" still played inside Hayes' head. He knew how to switch it off. And as Allen, who fallen back against the hood of the car, slack-jawed, dumb Smokey hat tipping into his eyes, finally managed to unlatch his holster, pull and take aim, as the sour old hooters and scrapers of Professor Sombra's machines squealed their disappointment at their victims' escape, Hayes whirled like in a dance, pretending to run. ●



MORE SCENES FROM THE L-5 POSTERS


1.
A woman emerges from the skinway escalator
and magnetic trains that whisper there below.
She is dependent upon those grey machines,
upon the great fishbowl humming about her,
yet she dresses colorfully and seems content
as a striped clownfish nesting in an anemone.
Disease is a memory as fleeting as a frown.

2.
Axis-divers point to the belt of land overhead.
Their smiles are placid as the elliptical lakes
set like rows of turquoise in a silver sky.
Why do they picture colonists as so peaceful,
glazed-eyed as manatees reincarnated as
men?

3.
Outside shot: the colony is a marker buoy
moored
in the still place between gravitational tides.
It spins at absolute zero. Imagine the axle of
a gyroscope that's foregone the need for
rigging.
The painter has infused this with life, added
highlights bright as night beacons, as sunken
coins.
They beckon to the starswimmers within us all.

—Robert Frazier





by Pat Murphy

IN THE ABODE OF THE SNOWS

art: Sheila Smith

Pat Murphy's work seems to bear a direct correlation to her exotic vacations. The following story is set in Nepal and was written after a two-month trip to Nepal, Burma, and Thailand. She is currently at work on a story that's set in Burma. Ms. Murphy's new novel, *The Falling Woman* (just out from Tor Books), is a fantasy about a woman archaeologist who is excavating the ancient Mayan city of Dzibilchaltun.

It was written after two trips to Mexico and a month on an archaeological dig in Arizona.

We don't know where the author will turn up next, but we do know that the tale which results will undoubtedly be intriguing.

In a hospital room with white walls, Xavier Clark held the hand of his dying mother. The chill breeze from the air-conditioner made him think of the snow-covered peaks of the Himalayas: Annapurna, Machhapuchhare, Dhaulagiri, Nilgiri. Places he had never been. His mother's shallow breathing could have been the whispering of snow crystals, blown by mountain breezes across a patch of ice. The veins beneath her pale skin were faintly blue, the color of glacial ice.

His mother's eyes were closed, and he knew she was dying. With each passing year, she had grown more frail, becoming as brittle as the delicate tea cups that she kept locked in the china cabinet. Her hair had grown paler, becoming so ethereal that her scalp showed through no matter how carefully she combed and arranged the white wisps.

His mother's breathing stopped, and he listened, for a moment, to the quick light sound of his own breathing and the pounding of his own heart. Closing his eyes, he clung to his mother's hand and savored a faint uneasy feeling of release, as if his last tie to earth had been cut and he could soar like a balloon, leaving the ordinary world behind.

Xavier returned from the hospital to his mother's house. Though he had lived in the house for all of his forty years, he still thought of it as his mother's house. Even when his father had been alive, the house had been his mother's. His father had always seemed like a visitor, stopping at the house to rest and write between expeditions to Nepal.

When Xavier was five, his father had died in a snowslide on the eastern slope of Dhaulagiri. When Xavier tried to remember his father, he could picture only the broad-shouldered man that he had seen in out-of-focus book-jacket photos, a lifeless black-and-white image.

More clearly than Xavier remembered his father, he remembered his father's possessions: an elaborately carved prayer wheel that reeked of incense, a small rug on which two dragons curled about one another in an intricate pattern, a brass bowl that sang when struck with a wooden rod, wooden masks with great empty eyes and grimacing mouths, round brass bells the size of his fist attached to a strip of brightly colored tapestry. Upon receiving word of his father's death, Xavier's mother had taken all these exotic treasures, wrapped them in newspaper, and packed them in a steamer trunk that she pushed into a corner of the attic. As a child, Xavier had yearned to look at his father's belongings, but the steamer trunk was locked and he had known better than to ask his mother for the key.

His mother had never talked of his father after his death. She never remarried, raising Xavier herself, living frugally on the proceeds of his father's insurance policies and on royalties from his books.

As a teenager, Xavier bought copies of his father's three books: *Ad-*

ventures on the Roof of the World, Land of Yak and Yeti, and The Magic of Nepal. He hid the books from his mother and read them in his room when he was supposed to be doing his homework. On the map in the flyleaf of one book, he traced his father's journeys in red pen. In his sleep, he muttered the names of mountains: Machhapuchhare, Annapurna, Dhaulagiri, Nilgiri. He remembered the names of Himalayan rivers, fed by monsoon rains and melting snows. He knew the names of his father's porters—the Sherpas who accompanied the mountaineering expeditions—better than he knew the names of his own schoolmates.

He was a shy teenager with few friends. After graduating from high school, he attended the local college and majored in biology. He had planned to base his thesis on observations of mountain sheep in the Rockies, but just before he was due to leave, his mother had taken ill. He canceled his trip and spent the summer observing waterfowl in a local pond, writing a thesis on the behavior of coots in an urban environment.

At college graduation, he was offered a job as wildlife biologist in the Idaho National Forest. Upon receiving the good news, his mother suffered the first in a series of heart attacks. He accepted a position as biology teacher at the local high school and stayed home to nurse her.

Living in his mother's house with the silent memories of his father's glorious past, he had become a secretive and solitary man. His clothes hung loosely on his body, like the skin of a reptile preparing to molt. His students joked about him, saying that he looked like one of the thin dry lizards that he kept in the classroom's terrarium. He had grown prematurely old, never leaving town because his mother was never well enough to travel and never well enough to be left alone.

In the empty house, on the evening of his mother's death, Xavier was truly alone for the first time in decades. He felt strangely hollow—not lonely, but empty. He felt light, insubstantial, as if the slightest breeze could carry him away. He could do anything. He could go anywhere. He thought about his father's trunk and went to the attic.

The trunk had been pushed to the farthest corner, tucked under the eaves—behind a broken lamp, a dressmaker's dummy stuck with pins, a box of Xavier's old toys, and an overstuffed armchair with torn upholstery in which generations of mice had nested. The trunk was locked and, for a moment, Xavier hesitated, considering retreat. Then he realized that the house and all its contents were his. With a screwdriver and hammer, he attacked the trunk's rusty hasp and tore it free of the lid.

On top of the newspaper-wrapped bundles in the trunk lay a package wrapped in brown paper and decorated with Nepali stamps. Xavier care-

fully unwrapped the package and found a leatherbound notebook filled with spidery handwriting that looked curiously like his own.

Xavier opened the book and read a page: "I have decided to leave the expedition and press on alone, following the Kali Gandaki to its source. In the bleak northern hills, I am certain I will find the man-ape that the Sherpa call the yeti. Winter is coming and many will call me foolish, but I cannot turn back. I miss my wife and son, but I like to think that my son, if he were here, would understand. I cannot turn back. The mountains will not let me."

Mingling with the dusty air of the attic, Xavier thought he smelled incense, a foreign smell that awakened unfamiliar urges. Kneeling beside the trunk, his father's journal in his hands, he felt, in some strange way, that he had made a decision. He knew that he would not return to school for the fall term.

In a new backpack, purchased at the local sporting goods store, Xavier packed field notebooks, camera, and many rolls of film. He bought a kerosene stove and tested it in the backyard, boiling water for tea in a light-weight aluminum pot. He bought a plane ticket to Katmandu by way of Bangkok and converted \$5000 cash into traveler's checks. He studied a book titled *Nepali Made Simple*, memorizing simple phrases. He haunted the local college library, reading all the accounts of yeti sightings that he could find.

Mountaineers described the beast as inhumanly tall and covered with shaggy hair. Some said it was nocturnal, prowling the barren slopes between the treeline and the permanent snows. Some said it was like a monkey; others, like a bear. Tibetans and Nepalis credited the beast with supernatural powers: its bones and scalp were valued as objects of great power.

He read his father's journal, lingering over descriptions of the terrain, the mountains, the wildlife. His father's books had maintained a heroic tone: men battled the wilderness, always fought fair, and usually triumphed. The journal gave a more realistic account: describing stomach upsets and bouts with dysentery, complaining of lazy porters, recording bribes given minor officials for quicker service. The journal told of superstitions: Tibetans believed that shamans could transform themselves into birds, that finding a hat was unlucky, that dogs howling at dawn were an inauspicious omen. Xavier read all this with great enthusiasm.

At night, Xavier dreamed of cold slopes, scoured clean by endless winds. He was filled with a feverish longing for the high country, where the snows never melt. He would find the yeti, track its movements, study its biology. He would finish the task that his father had begun and return to his mother's house to write of his success.

On his first day in Katmandu, Xavier wandered the narrow streets of the alien city, marveling at how strange and yet how familiar it seemed. It matched his father's descriptions, yet somehow, on some level, it seemed quite different.

A shy Hindu boy with a red tika dot painted on his forehead stared at Xavier from a dark doorway. The child wore no pants and his dark skin reflected a little light from the street, a subtle sheen on thin legs, thin buttocks. In the shade provided by a shrine to Ganesh, the elephant-headed son of Vishnu, a street dog rested and licked her sores.

The market smelled of incense, strong spices, and cow manure. Xavier shooed away the vendors who tried to sell him tourist trinkets, the rickshaw drivers who asked in broken English where he was going, the black market money changers who offered him a good rate, a very good rate, for American dollars. He was caught by the feeling that something was about to happen, something sudden and strange, something exotic and unanticipated. He stared about him with impassioned hungry eyes, watching for a secret signal that the adventure began here.

In a small square, bedsheets and other laundry flapped from the second floors of the surrounding houses. The wooden frames of the windows had been ornately carved sometime in the last three centuries. The faces of Hindu deities and demons stared from a complex background of twisting human bodies, vines, and flowers. In the square below, heaps of yellow grain dried in the autumn sun. Small children kept guard, stopping noisy games to chase away cows and dogs and pigs.

In a small street stall frequented only by Nepalis, Xavier ate lunch, crouching uncomfortably on a wooden bench just barely out of the street. The high clear piping of flutes played by flute sellers mingled with the honking of rickshaw horns and the jingling of bicycle bells.

Though the Nepalis ate with their hands, the shopkeeper insisted on giving Xavier a tarnished and bent fork and on showing the American how to sprinkle hot peppers on his daal baat, the rice and lentil dish that served as the staple of the Nepali diet. The shopkeeper, a wizened man in a high-crowned brimless hat, sat beside Xavier on the bench and watched him eat.

"You come from England?" the shopkeeper asked Xavier.

"No, from America."

"You going trekking?"

"Well, yes," he said. "I plan to go up past a town called Jomsom. I . . ." He hesitated, then plunged on. "I have read that yeti have been seen in that area."

"Ah, you wish to find the yeti?"

"Very much."

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The shopkeeper studied him. "Westerners do not have the patience to find the yeti. They hurry, hurry, and never find what they look for."

"I have all the time in the world," Xavier said.

The shopkeeper folded his hands in his lap, smiled, and said, "You will need a guide. My cousin, Tempa, can take you where you need to go."

Xavier ate and listened to the shopkeeper praise the virtues of his cousin Tempa. Sitting in the open stall, he looked up at the thin strip of sky visible between the houses. A single bird flew over, heading northwest. Xavier watched it vanish from sight and knew, with the same certainty that had caused him to quit his job and come to Nepal, that he would go northwest to the Himalayas, to the high country where anything could happen.

On the fourth day on the trail, Xavier and Tempa were caught in a violent hailstorm that transformed the path into a running stream that splashed merrily around Xavier's boots. The water quickly penetrated the waterproof oil that Xavier had applied to the boots in Katmandu. His socks were soon soaked and his feet ached with the cold.

In a low stone hut that served as teahouse and provided primitive accommodations, they found shelter. The group of ragged porters that huddled by the fire looked up when Xavier ducked through the low doorway. The teahouse was filled with woodsmoke and the scent of unwashed clothing. The small fire that burned in the center of the single room seemed to provide more smoke than warmth.

Xavier blinked as his eyes adjusted to the dark interior. Not elegant accommodations, but better than a tent and no worse than the teahouses that had sheltered them for the past three days. Xavier propped his pack against the wall and hung his rain parka on a nail that jutted from the wooden doorframe.

The proprietress, a Tibetan woman, offered him rokshi, locally distilled wine, and he accepted gratefully. The clear liquor smelled faintly of apples and tasted overwhelmingly of alcohol. The first mouthful seared his mouth and throat with a bright, almost painful warmth that spread slowly to his chest. He sat on a wooden bench by the door and slowly unlaced his wet boots.

Tempa was already deep in conversation with the porters who crouched by the fire. He looked up at Xavier, his eyes reflecting the firelight. "They say that snow has fallen in the pass to the north," Tempa said to Xavier. "And a big storm is coming."

Xavier shrugged, pulled off his boots, and gingerly wiggled his toes. Since the very first day, Tempa had been complaining about the weight of his pack, the length of each day's hike, the perils of bad weather. "Not much we can do about the weather," he said.

Tempa frowned. "Big storm," he said. "Too late in the season to go on. Tomorrow, we go back."

Xavier shook his head and frowned at Tempa, trying to assume an air of authority. "Go back? We've just started. If there's a storm, we'll wait it out."

"Too cold," Tempa said. "Winter is here."

"Tomorrow, we go on," Xavier said. His father had written of stubborn porters and of the need to show them who was boss. "Do you understand? I'm not ready to go back."

Tempa returned unhappily to his friends by the fire. Xavier relaxed, loosened the collar of his damp flannel shirt, and leaned back against the stone wall of the teahouse. The warmth of the rokshi spread throughout his body. Outside, the rain had stopped and a rooster was crowing. Xavier closed his eyes and listened to the soft whispering of water flowing down the trail, the gentle clucking of the chickens that searched for edible insects in the scrubby weeds that grew just outside the teahouse door. The breeze that blew through the door smelled of mountains that had been washed clean by the rain. He took a deep breath, but caught a whiff of another scent, something stronger than the woodsmoke or the rokshi—an animal scent. He looked up to see an old man standing in the hut's open doorway.

Though the afternoon breeze was cold, the old man wore no shirt or jacket, only a loose loincloth of an indeterminate color. The cloth may once have been white, but it had become an uncertain shade of gray: the color of dust, of woodsmoke, of ashes and grime. The man's long gray-streaked hair was wound in a topknot. The ancient face was stern—a high forehead, a nose like a beak. Around the man's neck hung a string of round beads, each one a different shade of off-white. Xavier stared at the beads, recognizing them from a description in his father's journal. Each of the 108 beads had been carved from the bone of a different human skull. At the man's belt dangled a carved ivory phurba, the ritual dagger carried by all shamans of Bon, the ancient animistic religion that had preceded Buddhism in the Himalayas.

In one hand, the man carried a metal bowl, which he held out to the Tibetan woman. She beckoned him in and he squatted beside the fire.

"Namaste," Xavier said, the traditional Nepali greeting that meant "I salute you." His voice was suddenly unsteady. Here was adventure—a traveling shaman visiting the same teahouse.

The old shaman stared at Xavier, but did not return his greeting.

Xavier beckoned to Tempa. "Who is the old man?" he whispered.

Tempa's small vocabulary deserted him when he did not find it convenient to speak English. Now, occupied with a glass of rokshi and eager to return to his friends, Tempa shrugged. "Ta chaina." I don't know.

"Where is he from?"

Tempa frowned, seemingly reluctant to say anything about the old man. "He lives alone." Tempa waved an arm toward the hills.

"A hermit," Xavier said.

Tempa shrugged and returned to his friends.

The Tibetan woman served dinner, scooping a serving of rice into the old man's bowl and moistening the grain with a spoonful of daal. The old man silently accepted the offering. The woman dished out a similar dinner for the others.

After his third glass of rokshi and a plate of daal baat, Xavier had relaxed. The old man, he noticed, ate alone, squatting in a corner of the hut. With rokshi-induced courage, Xavier went to the corner and endeavored to begin a conversation with the old man.

"Rokshi?" Xavier said to the old man, and then he signaled the woman for another glass. The old man studied Xavier with impassive black eyes, then accepted the glass.

"Timiko ghar ke ho?" the old man asked Xavier. "Timi kaha jane?" Where are you from? Where are you going?

Xavier replied in halting Nepali. I come from America. Then he waved a hand to indicate his destination, pointing northward toward the high cold mountains that filled his dreams. "Meh-teh hirne," he said. Which meant, more or less, I look for the yeti.

The old man took Xavier's hand in a strong grip and peered into the American's face with sudden intensity. He spoke rapidly in Nepali, but Xavier could not follow his words. When Xavier shrugged, looking bewildered, the old man called to Tempa, who sat with the other porters by the fire. Tempa responded in Nepali.

The old man broke into a grin, his stern face collapsing into wrinkles. He reached out a withered hand and cupped Xavier's chin, lifting the biology teacher's face as a doting grandmother might lift the face of a shy child. The old man threw back his head and laughed at something that he saw in Xavier's face. He released his hold on Xavier, and said something, but the only word Xavier could catch in the rapid string of Nepali was "meh-teh." Something about yeti.

Xavier smiled uneasily, wondering how his father would have handled a situation like this. "What's all that about?" Xavier asked Tempa. Reluctantly, Tempa left his friends and came to squat beside Xavier and the old man.

"He wants to know where you are going," Tempa said. "I tell him you look for the yeti."

Xavier nodded and smiled at the old man.

The old man said something else in rapid Nepali. Xavier shook his head and asked him to speak more slowly.

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Still grinning, the old man repeated himself, pausing after each word and accompanying his words with gestures. Xavier couldn't follow everything that the old man said, but he thought he caught the gist of it: The old man had seen the yeti many times. He was a powerful shaman and he had hunted the yeti many times.

Xavier poured the old man another cup of rokshi and asked him to tell about the yeti. Beside the fire, three porters played a noisy game of cards. Outside the door, by candlelight, the Tibetan woman washed the dinner dishes. Inside the smoky teahouse, Xavier leaned close to the old man, ignoring his animal scent, and listened to tales of the yeti.

The yeti looked like men, only different, the old man explained slowly. They hunted at night, and they were very strong. With only his hands, a yeti could kill a yak, break the neck. (The old man brought his hands together like a man snapping a stick.) The yeti is fierce and cunning.

Xavier, with hand gestures and halting Nepali, asked the old man how he hunted such a fierce beast. With a dirty finger, the old man tapped his temple and nodded sagely. He called out to the woman, and she brought a stoneware crock and two tin cups. The old man filled the cups with a ladle and offered one to Xavier. "Yo chang ho," the old man said. This is chang.

Xavier had heard of chang, a thick beer brewed with rice and barley. Unwilling to offend the old man, he sipped the thick beverage. It tasted like a mixture of sour porridge and alcohol, but after the first few sips, it wasn't too bad.

The old man tapped the cup and told Xavier that he hunted the yeti with chang. He launched into a long explanation which Xavier followed with difficulty. To catch a yeti, it seems, the old man found a village where a yeti had been bothering people, stealing their crops and killing their goats. On a night when the moon was new, the old man left a pot of chang in the path where the yeti would find it. The yeti drank the chang and fell asleep, and in the morning, the old man captured it easily. Yeti, said the old man, like chang.

More chang, more labored discussion of the habits of the yeti. Xavier grew accustomed to the smoke that filled the room. At some point, the Tibetan woman lit a candle, and the flickering light cast enormous shadows that danced on the walls. The old man's face, illuminated by the candle, seemed filled with sly amusement. Sometimes, it seemed to Xavier that the old man was laughing at him beneath the words, teasing him with some private joke. But the room seemed small and cozy and Xavier's Nepali improved with each glass of chang. It was a good life, a good place to be. With each cup of chang, the joke seemed less important. Xavier lost track of how many cups of chang he drank. The old man seemed like a good friend, a faithful companion.

Somehow, Xavier found himself telling the old man about his father and his search for the yeti. Groping for words in Nepali, he tried to explain that he needed to find the yeti, to finish what his father had started. He tried to explain how he felt about the mountains. In a mixture of Nepali and English, he tried to describe his dreams of mountains and snow.

The old man listened intently, nodded as if he understood. Then he spoke softly, slowly, laying a hand on Xavier's hand. I can help you find the yeti, he said to Xavier. Do you want to see the yeti?

Drowsy from chang, half mesmerized by the candlelight, Xavier took the old man's hand in both of his. "I want to find the yeti," he said in English.

The old man fumbled for something in the pouch that dangled at his belt. He displayed his findings to Xavier on the palm of a withered hand: a small brown bone etched with spidery characters. The bone was attached to a leather thong. It was made of yeti bone, the old man explained. Very powerful, very magical.

Xavier reached out and touched the small dried object. It was warm to the touch, like a small sleeping animal. The old man smiled. His dark eyes were caught in a mesh of wrinkles, like gleaming river pebbles in a bed of drying mud.

The old man nodded, as if reaching some conclusion, then looped the leather thong around Xavier's neck. Startled, Xavier protested, but the old man just smiled. When Xavier lifted the pendant, as if to remove it, the old man scolded him in Nepali.

They had more chang to celebrate, and Xavier's memories were fuzzy after that. He remembered the old man reassuring him that he would see the yeti. He remembered lying down on a bamboo mat by the fire and pulling his still damp sleeping bag over himself.

In his dreams, he fingered the bone that hung around his neck. He dreamed of studying the mark of a bare foot on the side of a snowy mountain. In the dream, he squatted to measure the length, the width. Suddenly, without surprise, he realized that his own feet were bare. His feet ached from the cold of the snow, and he was hungry, very hungry.

He blinked awake in the pale morning light. He could hear the hollow clanging of metal bells: a mule train was passing on the trail. The wood smoke that drifted through the hut's open door reminded him of the cold mist that filled the mountain gorges of his dreams. His head and belly ached, and he remembered drinking too much rokshi, too much chang.

The other bamboo mats were empty. The Tibetan woman crouched by the hearth, poking the fire that burned beneath the blackened teakettle. The porters were gone; the old man was gone. Confused by lingering dream images, Xavier sat up and felt the leather thong around his neck.

The bone was there. He ran a fingernail over the rough surface and felt more confident. His throat was sore and his voice was hoarse when he asked the woman where his porter, Tempa, had gone.

The woman shook her head. "Ta chaina," she said. I don't know.

Xavier struggled from his sleeping bag and stumbled out of the hut, making for the boulder-strewn slope that served as a latrine. The wind numbed his face and the gray world outside the hut seemed less substantial than his dreams. The sky was overcast; the mountains, hidden by distant haze. The ground underfoot was composed of mottled gray and brown pebbles, swept clean by the steady wind from the north. The trail, a faint track marked by the dung of pack mules and the scuff marks of hikers' boots, led northward.

Xavier stopped beside a large boulder. He noticed a large raven, perched on a distant rock, watching with interest as he pissed. "What do you want?" he said crossly to the bird. The bird regarded the man with bright curious eyes, shrieked once, then took flight, leaving him alone, blinking at the gray sky.

Xavier made his way back to the hut. Tempa was gone. When he asked the Tibetan woman again, she shrugged and said something about Tempa leaving very early in the morning. The porter had taken some of Xavier's possessions along with his own: Xavier's wool gloves and hat, the wool socks that had been drying by the fire, his pocketknife, and the rupee notes that Xavier kept in his jacket pocket.

Xavier contemplated the desertion with mixed feelings. He could pursue the thieving porter, but if he turned back, he would miss his chance to search for the yeti. He was seized by uncertainty. Perhaps the weather was turning bad and he should turn back. Could he find his way without a guide? Should he abandon his provisions and trust to local supplies for his food?

At the same time, he was glad at the thought of traveling on alone. The porter had seemed skeptical of Xavier's plans from the first day on the trail. Tempa had, Xavier felt, lacked the proper spirit of adventure.

In the end, it was Xavier's memory of the old man's words that decided him. "You will see the yeti," said the old man. How could Xavier turn his back on such a prophecy?

Taking a loss, Xavier sold most of his remaining supplies to the Tibetan woman. He added the rest to his own load. When he left, his pack was heavier by about twenty pounds. Though he knew that his shoulders would be aching by noon, he whistled as he walked, relishing the thought of being alone in the desolate reaches of the Himalayas.

North of Ghasa, past the village of Tukche, the valley broadened. No trees grew on the great gray slopes. On the lee side of large boulders grew stunted bushes and patchy grasses, tough plants with foliage as

dusty as the rocky slopes. Shaggy goats, snatching a thorny lunch in one such patch, stared at Xavier as he passed, their golden eyes faintly hostile. The children who tended the herd, two ragged boys with unruly hair and snotty noses, silently watched the white man with indifferent curiosity.

Once, a flock of ravens took flight from the hillside beside him, wheeling above him to darken the sky like a flight of demons. One raven from the flock kept pace with him for a time: flying ahead to perch on a mani wall, a jumbled construction built of flat stones carved with Buddhist prayers. As Xavier approached, the bird called out in a croaking guttural voice, then flew to a boulder a few hundred yards down the trail. Each time Xavier drew near, the bird flew on a little farther, then stopped by the trail, as if waiting for the man to catch up.

The wind blew constantly, kicking up the dust and carrying along leaves and twigs. It blasted the boulders and scoured the mani stones, as if trying to wipe the carved letters away. It chapped his lips, dried his throat, and rubbed dust into his skin and hair.

The trail followed the Kali Gandaki, a chilly turbulent river with waters as gray as the rounded granite boulders that lined its bank. In the valley, the river widened, flowing in a network of channels that merged and separated like the veins and arteries of a living animal. The trail wandered beside one of the channels. Beside the water, sparse red-brown grass grew, gray soil showing between the blades.

Without his wool cap, Xavier's ears were unprotected and the rushing of the wind blended with the rushing of the river and the shrill cries of insects in the grass. As he traveled north, signs of passing travelers grew fewer: the mark of boot in the mud; a few hoofprints; ancient horse droppings, long since dried to dust. The trail sometimes disappeared altogether, leaving Xavier to wander by the stream, searching for another sign to show him the way.

A few trees had grown there, reached maturity, then died. Their skeletons reached for the sky, twisted by the nagging wind and crippled where peasants had chopped away branches for firewood. The landscape had a dreamlike quality, as if this were a place that Xavier had imagined for himself. Dry branches rattled in the dry breeze. He was not startled when a raven flew from a twisted tree, laughing when the wind lifted it aloft. It seemed right for the raven to be there, to laugh, to fly ahead as if showing him the way.

The village of Jomsom was an unwelcome intrusion on the landscape, a cluster of low-lying stone houses inhabited by people who had been blasted into passivity by the constant wind. The streets and houses were gray and lifeless, and he passed through as quickly as he could.

A few miles beyond Jomsom, the trail forked: one branch led to Muk-

tinath, a destination popular with trekkers. Xavier took the other branch, the ill-marked track that led to the north. A few miles down the trail, he stopped by the Kali Gandaki, clambering down the steep bank to the rushing water. Though the air was still cold, hiking had warmed him. The wind had eased and the sun was out. He stripped to the waist, draping his shirt over a rock and putting his watch beside it. He splashed the river water on his face, his chest, and up over his back, gasping when the cold water struck his skin, shaking his head like a wet dog.

He was toweling dry when he heard the harsh cry of a raven. The black bird was perched on the boulder beside his shirt. Xavier saw the raven peck at something on the rock, and he shouted, waving at the bird. The raven took flight, and Xavier saw that it carried his watch in its beak. The bird circled, the watch glinting in its beak. Then the wind caught the bird and it soared away over the woods, vanishing from sight.

Xavier did not miss the watch as much as he expected to. As the day passed, he grew accustomed to a timeless existence. He stopped to eat lunch when he was hungry, rested when he was tired. He camped out that night, stopping between villages beside the Kali Gandaki and using his mountain tent for the first time. He dreamed bright crystalline dreams: he was on a steep ice slope, pursuing a dark shape that remained always just a few steps ahead. He chased the dark shape to the edge of a precipice and slipped on the ice, realizing as he fell that the fleeing darkness was his own shadow.

When he woke, the ground was white with frost, and his breath made clouds that the wind swept away. At dusk the next day, he reached the village of Samagaon. The villagers eyed him with great suspicion: strangers were a rare sight so far from the trekking route.

With Tempa's theft, Xavier's supply of rupees had dwindled. He found only one teahouse, and the proprietor, a Gurkha soldier who had returned to his home village, scoffed at the American's traveler's checks, puffing his cheeks out and saying that the checks might be no good, he couldn't tell.

Xavier considered the matter, then offered to trade some of his equipment for cash and food. The man did not want a wool sweater or worn down jacket, but he inspected the kerosene stove carefully. On the spur of the moment, Xavier decided he could do without the stove. He demonstrated it carefully, filling the fuel tank with kerosene and lighting the burner. It coughed once or twice, then roared with a steady blue flame that lit one corner of the dark smoky tea shop. In limited Nepali, Xavier praised the stove: "Ramro cha. Dheri ramro." It's good, very good. His voice was hoarse from days of silence.

While Xavier bargained, two ragged little girls watched from behind the skirts of the man's wife. They stared with wide round eyes, trying

to absorb this curiosity, this white man far from the places that white men were found. The shopkeeper came from a long line of traders, and he drove a hard bargain. In the end, Xavier traded for rice, lentils, curry powder, and two hundred rupees cash—a fraction of the stove's value, but he could carry no more food and the shopkeeper claimed that he had no more cash. Xavier spent the night on the shopkeeper's floor, ate a hurried breakfast of corn porridge sweetened with honey, and headed north.

He sang as he walked, a tuneless melody that seemed to ebb and flow like the rushing of the river. His beard was growing in, and when he saw his reflection in a still pool, he laughed at himself, a rough-looking character with a dirty face and good crop of stubble.

Early in the morning, he could see the mountains. But as the day progressed, clouds obscured the view, forming what looked like a new uncharted range of snow-covered peaks, billowing masses of pale gray cloud mountains.

Early in what he supposed to be the afternoon, the overcast sky grew darker. He reached a river crossing: the Kahe Lungpa, a swollen stream that tumbled down from the high peaks to meet the Kali Gandaki. The bridge over the river was down. Water rushed past one shattered wooden support, causing the rotten boards to shiver in the current. Perhaps the bridge had washed out during the monsoon storms. The crossing was far from any village and no doubt the few travelers who passed this way did not have the resources or time to repair or replace the bridge, but simply forded the river.

For a moment, he stood on the bank, gazing at the roaring stream. In one book, his father told of fording snow-fed rivers barefoot, preferring, he wrote, "the momentary discomfort of crossing barefoot to the prolonged chafing of sodden boots." Xavier reluctantly removed his boots, shivering in the cold breeze. He tied the boots to the pack, slipped on a pair of rubber thongs, rolled up the legs of his jeans, and stepped down into the water, knowing that if he hesitated, he would turn back.

The first few steps were painful, but the cold water numbed his feet, making the pain more bearable. The river dragged at his legs, trying to shift the rounded stones beneath his feet. He took his time, making sure that each foot was planted before trusting his weight to it, taking one slow step after another. Time had no meaning: he could have been walking through the water for an hour or a minute, he would not have known the difference.

He was halfway across when the first snowflakes fell. The pain returned to his feet: a sharp hurt that seemed to extend deep into his bones. He tried to move more quickly, but his feet could no longer feel the rocks beneath him. He stumbled, caught himself, then slipped again and fell,

twisting to one side and catching himself on his arm. The river snatched at the pack; the current yanked it to and fro. Xavier clung to the pack's straps, struggling to regain his footing and to hoist the waterlogged pack from the river. He staggered forward, floundering, gasping from the shock of the cold water, almost losing his thongs, dragging himself onto the far bank and flinging his pack beside him.

From the scraggly bushes on the riverside, a raven laughed hysterically. Xavier ignored the bird, breathing in great gasps and clutching at the damp grass that grew on the bank. After a moment, he rolled over to check his pack. Only then did he realize that the river had snatched the boots from his pack, as well as soaking his food, and drenching his sleeping bag.

For a moment, he lay on the ground, unwilling to move. His feet ached from the cold, his hands trembled. Then he felt for the carved bone pendant around his neck. The old man had said he would see the yeti. That reassurance comforted him. He forced himself to sit up and figure out how to get warm.

A pair of damp wool socks provided some protection for his feet; his wool sweater blocked some of the wind. He warmed himself with exercise, searching for driftwood in the bushes that grew along the river. When he was moving, his arms and legs did not tremble as violently.

An hour's search yielded a small stack of sticks, none bigger around than a finger, and a few damp logs, driftwood cast on shore by the river. His teeth chattering, he searched for tinder, scraps of dry material small enough to catch quickly. But the snow had dampened the leaves and grasses, leaving nothing dry.

The wind grew stronger, slicing through his wet clothing and making him shiver uncontrollably. With his pocketknife, he whittled a few thin splinters from a stick, heaping them together in the shelter of a bush. He built a small teepee of sticks over the tinder and hunched over it.

The first match went out immediately. The head of the second match—wretched Nepali matches—broke off without catching. The third match burned reluctantly. When he held the flame beside his heap of shavings, two slivers of wood smouldered for a moment, but the red glow faded as soon as the match went out.

Xavier's hands shook as he carefully arranged grass beside the wood shavings. The grass, like the wood, would not burn. Desperate for warmth, he patted his pockets, searching for a scrap of paper. In his wallet, he found his traveler's checks, bone dry and warm from his body heat. They were worthless in the woods, and he hesitated only for a moment before crumpling a fifty-dollar check. He arranged the splinters of wood over the dry paper.

The check burned well, but it was small and it burned out before the

wood caught. He sacrificed two more, holding his hands out to protect the tiny flame from the wind. The checks whispered as they burned, tiny crackling voices that spoke of distant places and hidden secrets. When he added the fourth and fifth check, the wood caught, flames moving reluctantly from stick to stick. He propped a driftwood log near the fire where it would dry, and made himself as comfortable as he could, sitting with his back in the bushes to protect it from the wind. He draped his wet sleeping bag over his lap where the fire would warm it.

The night was long. Despite the cold, he dozed off now and then, waking only to cough, a hoarse grating sound in the darkness. When he woke, he found himself clutching the bone. He dreamed of chasing the yeti through the pale gray crevices of cloud mountains. He woke to feed the fire, then returned to dreams.

After a time, the darkness and the cold no longer seemed alien. They were threatening, but familiar. It seemed natural to wake in the darkness, struggling for warmth.

In the morning, he hiked in rubber thongs. He coughed constantly. Once, on the outskirts of a village, a little girl who was tending a herd of goats greeted him timidly. He tried to reply, but the sound that came from his mouth was only a rough croaking, noise with no meaning like the clatter of rocks in a rock slide. He tried to smile, wanting to show the child that he meant no harm, but she scampered up the slope with her goats.

He hiked on for three days. Some of his food spoiled and he knew that food would be scarce farther north. But somehow, for some inexplicable reason, he was happy. The wool socks grew tattered and encrusted with mud, but his feet grew used to being cold. His beard grew thicker and he washed less frequently, growing accustomed to the grime on his face and hands. He hurried through villages, avoiding people. When he was greeted, he nodded, but remained silent.

He passed through the village of Dhi in the early evening, walking quickly through the darkness. Rather than making him eager for human company, solitude left him wishing for more solitude. A dog barked wildly from inside a house, a near hysterical baying. Xavier grinned savagely and kept walking. He despised the laundry flapping from the lines and the heaps of dung beside the trail. He slipped through the village, nodding a greeting to a woman filling a metal jug at a stream. She dropped the jug and stared at him. Though she called out, he did not stop, but kept walking away into the darkness to seek the mountains.

As he hiked, he listened to the wind, to the river's voice, to the chatter of ravens. The sound seemed to flow through him, bringing him peace. Though the weather grew colder, he did not worry.

He made camp a day's walk from Dhi by the confluence of the Mustang

Khola and a smaller stream that was unnamed on his map. The wind was constant there, sweeping around the boulders and scouring the rocks. In a small hollow between two house-sized boulders, he pitched his tent.

The first night, he heard the howling of wolves in the distance. At midnight, he woke when snow began to fall, a gentle flurry that drifted against the tent. In the morning, he found the tracks of wolves in the snowflakes that powdered the ground near his fire ring.

During the first few days, he explored his surroundings. He saw fat short-tailed mice scampering among the rocks. Wild sheep, the blue Himalayan bharal, grazed by the stream. Xavier climbed upstream, following sheep trails among the boulders.

Half a day's scramble up the stream, he found a small cave, tucked among the rocks. From the look of the cave, it had once been inhabited—by a hermit, a holy man, or a sennin, a mountain lunatic. Three fire-blackened rocks formed a triangular hearth; a mound of brush in the back provided a scratchy bed. Beneath the cave, the valley broadened into a small meadow: tough, red-brown grass poked through the light snow. The cave's entrance offered a view of the river valley better than any he had found elsewhere.

He moved his gear to the cave just before the second snowfall and made his bed in the brush heap in the back. He grew adept at cooking over a small fire: the smoke made his eyes itch, but he grew used to that. In the cave, his sleep schedule changed. Daylight reflecting from the snow hurt his eyes, and so he slept through the brightest part of the day, then woke at twilight to watch the wolves chase the blue sheep through the moonlit valleys. He dreamed during those long daylight sleeps. In his dreams, the old man came to him and told him that he would see the yeti.

Somehow, he was certain that his goal was near. This valley had the flavor of the fantastic; the wind muttered of secrets, the boulders watched him as he slept. Sometimes, he believed that he would soon understand the language of the raven that perched outside his cave each evening. He knew this place as a man knows the landscape of his own dreams, and he knew that the yeti was here.

He woke and slept, woke and slept, watching the valley for signs of the unusual. His hair and beard grew long and wild. He discarded his tattered wool socks and his feet grew tough and calloused. His skin chapped in the wind. In the sand by the river, he discovered the mark of a broad bare foot; on a thorny bush, he found a red-gold tuft of hair. A few signs and a feeling, nothing more, but that was enough.

His supplies ran low, but he was reluctant to leave the valley to find more. He ate wild greens and trapped short-tailed mice in an old food tin and roasted them over the fire. Once, he found a bharal that had been

killed by wolves, and he used his pocketknife to hack meat from the carcass.

In his dreams, the valley was filled with moving shadows that walked on two legs, shambling like bears, shaggy and slope-browed. When he woke, his dreams did not fade, but remained as sharp and clear as the world around him. He dreamed of the raven, but somehow the bird was more than a raven. The black bird was the old man who had given him the bone. The old man wanted something in return.

Xavier never went out by day.

At last, his food ran out completely. He captured one last mouse, charred its body in the fire, and picked its bones clean. By moonlight, he walked to the village of Dhi. The trail made him nervous; it was too well-trodden. The first smell of unfamiliar woodsmoke made him stop. He heard barking dogs in the distance.

On the edge of the village, he paused to drink in a still pool. He was startled by his own reflection. His eyes were wild and rimmed with red; his face was covered with thick red-brown hair. He crouched in the field near a house, unwilling to go closer. Stacked in racks by the house were ears of corn, dried by the wind and the sun.

Hunger drove him forward, but something held him back. He did not belong here. The sky was growing light when he moved at last. He stood below the racks and reached up to pull corn free—one ear, two ears, a dozen, two dozen. He was tying them up into a bundle when he heard a sound.

Ten feet away stood a ragged boy, barefoot in the chilly morning. His face was smudged with dirt and already his nose was running. His eyes were wide, and they grew wider when Xavier looked at him. "Meh-teh," he whispered, backing away from Xavier, then turning to run. "Meh-teh!"

Xavier ran too, losing one of his thongs in the rocks by the trail, abandoning the other. The raven led him on, laughing overhead. He ran back to his cave.

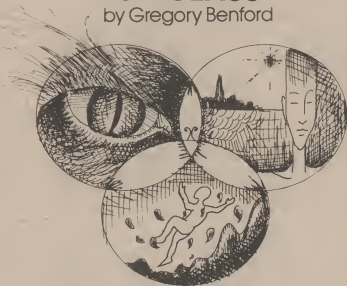
He roasted an ear of corn in the fire. It was charred and tough, but he ate it with relish. He slept for a long time, dreaming of the old man and the raven, two who were one. He knew that he belonged in this place. Each night, he went to the village and stole food. When the dogs barked, people ran from their huts, carrying torches and knives and shouting "Meh-teh! Meh-teh!"

One day soon, he knew he would find a pot of chang in the path. The raven told him so in a dream. When he found the chang, he would drink it and fall asleep. The villagers would capture him and the old man who was the raven would take his scalp. That was the way of things.

He was happy. ●

BLOOD ON GLASS

by Gregory Benford



Nature knows nothing of death.
Not in the cat's lazy smug *meeeeeeoow*
not in the antelope's mad kick
as the lion makes its meal.
Neither in the tidal lifting of a sluggish sea
by a star's blunt gradients,
nor a flower's nod, an insect's frantic dance.
Live is all the world ever says.
Of alternatives it lies mute.

But ponder aliens lounging in lattices,
of ancient ice-cased memories
from the first beings, born beneath
Suns now gone to shot and scatteration.
They have forgotten birth and,
sheltered in cool cubits, face no end.
If we meet them they will see
bags of ropy guts
skin shiny with grease
food stuck between our teeth
in our rush from interrupted breakfast.
Moving garbage, yellow fat jammed between
brittle calcium rods, stringy muscles
clenching, stretching to make the puppet cage
of bones yearn forward.

In our bookstores there are texts
on dying's art, a new kind of skill
we must learn: Identify the six stages
(rejection of news; depression; calm plateau;
world-gobbling; slide; will to go)
We are works in progress,
suspended between the mouse's unsuspecting struggle
and promises of crystalline infinities.
These aliens, then, are as animals.
Only in us and our unending forward tilt
Can death live.
Each sharp moment is free.
And all that could happen
Might yet be.

by Gregory Feeley

NEPTUNE'S REACH

Gregory Feeley sold his first SF story at the age of seventeen, and has since published nonfiction in *Saturday Review*, the *Times Literary Supplement*, the *Washington Post*, and numerous little magazines. "Neptune's Reach" is his second SF sale. At the moment, he is working on a novel, *Sunstroke*, and a biography of James Blish.

art: Bob Eggleton



The first jolt woke Jaroslav a second before the lights went out. He opened his eyes wider at the sudden fall of darkness, which never happened on board, and wondered confusedly if his eyes were still shut and he dreaming. The second jolt was harder and threw him from his bunk, leaving him no time to raise his hands before the pull of 1.4 gravities slammed the bulkhead against his face. Jaroslav lay still a second, the shocking pain from his broken nose clamoring through the fading realms of sleep, when he heard the ventilator near his right ear sigh to a stop.

The ringing silence brought Jaroslav unsteadily to his hands and knees, and as he knelt there, raising his head slowly to minimize the drag pulling like hooks on his nose, he felt the faint vibrations beneath his palms fade to stillness. Full engine failure, he thought. There would be no back-up lights glowing dimly in the control room. The imperceptibly cooling air was even now ceasing to circulate, sifting into thermoclines as blood settles within a body. Panic reached Jaroslav through his pain and he heaved himself with a sickening lurch to his feet.

The life module was too small for Jaroslav to become lost, and he made his way down the short hall into the control room brushing his fingertips along either wall. The porthole shone as a dim blue rectangle, too faint to illuminate any other feature in the room. Jaroslav edged around the console dominating the small space to approach the porthole, but recoiled from drawing too close, afraid that its surface would already be cold.

Locating the controls by touch, Jaroslav attempted to activate the auxiliary electrical system. The squares remained lifeless beneath his fingertips, and flipping a toggle to close a circuit manually produced only a click in the darkness.

How fast are we losing heat? he thought. And then: How fast are we losing buoyancy?

Groping his way along the length of the room, Jaroslav closed his hands over the pressure helmet which hung on the wall above the floor hatch. He fitted it over his head, almost shrieking when the unseen rim brushed the tip of his nose. Securing the seal around his collar, Jaroslav leaned across the control board until the helmet touched a length of pipe running down the wall. "Douglas," he said. "Doug, are you listening?"

A third jolt threw him backward, and when the helmet struck the bulkhead, Jaroslav could hear it: a metallic shearing belowdeck, as though the vessel's undercarriage were being pulled away. Another blow rocked the cabin, and he began to slide across the floor, disoriented within the confines of the helmet and darkness. Jaroslav was yelling, the trapped sounds drowning out the rending of metal.

When the clamor and motion ceased, he was wedged between swivel seat and console, the bulkhead canted beneath him like the list of a sinking ship.

The porthole showed a deeper aquamarine, darker as the atmosphere of Neptune thickened. Jaroslav had reached the medical kit by unscrewing the cabinet panels, and had stuffed both nostrils with gauze soaked in anaesthetic. He would have considered a painkiller save that he could not identify the contents of the vials.

With the stillness following the last jolts a lucid calm had come over him. The hollow reverberation when he struck the deck with his fist confirmed his suspicion: the *Diogenes* had lost much of its undercarriage, presumably in striking some surface feature that thrust up like an invisible Everest. Douglas, the power cells, and an unknowable amount of hardware were gone. And the changing color outside showed that the *Diogenes* was still descending.

Jaroslav made his way out of the room slowly, careful not to trip on the floor hatch. He wondered what lay on the other side.

The ceiling in the corridor was low enough for even Jaroslav to reach, and he found the ceiling hatch easily. Like everything else in the life module, it was not designed to function in a total power failure, but Jaroslav had helped assemble most of the interior compartments, and thought he could get the ceiling panels off if there were not a pressure differential on the other side.

If there was, of course, he was dead anyway.

An indeterminate time later Jaroslav had the collar around the hatch off and the fastening pins exposed. His arms ached from being raised over his head in the high gravity, and the effort of maintaining his balance on the tilted floor was hurting his back. He stood to one side and, stretching as far as his reach would allow, found two pins on opposite sides of the hatch and pulled them out. The remaining pins snapped like tiny bones, and the hatch crashed to the floor as though fired from a cannon.

Dust and fine debris rained through the hatch, and Jaroslav began coughing in the darkness. He pulled down the rope ladder and climbed through, into the specimen bay. It was colder here, and Jaroslav realized with a pang that he had been expecting heat to have risen from below. He thought of the open hatch, now spilling warmth, and grimaced.

The specimen bay was totally dark, lacking whatever dim gleam must have reached the hallway from the control room. Jaroslav knew where there was light, however. Squeezing past the instrument casings, he found the hatch to the main gas tank, which he knew had a manual override. Unscrewing the plug was easy, since its angle on the sloping shell put gravity on his side, but its weight almost pulled him to the floor. Straightening painfully, Jaroslav saw faint light streaming through the hatch.

The interior of the gas tank resembled the empty silos near the center of *Centaur's* axis where Jaroslav and his friends used to play. Strips of pale lighting ran its length, coolly luminescent so as to avoid any possibility of a spark reaching the methane samples. Jaroslav dropped to the floor, his arms trembling. The light soothed him, and he lay a moment looking up at its lines converging overhead, imagining for a confused moment that he was back in the vast tanks that were kept for holding water in the event that *Centaur's* mass had to be shifted, free spaces where the gravity was always low.

Rolling onto his side, Jaroslav pulled a number of tubes from his pocket and brought them before his face. There were stimulants, sedatives, and painkillers both for continued functioning and immediate sleep. Jaroslav's cheeks and sinuses seemed to hurt from proximity to pain. He took one of the blue-capped vials and began twisting it open.

And a great voice thundered out of the air above him: "CALLING DIOGENES, UNGER, CAN YOU READ ME?"

Jaroslav thrashed about on the tank's concave bottom until the pain in his face shocked him alert, and he lay listening to the voice, which was vibrating the metal beneath him. It was inhuman, like that of a machine, and seemed to originate where the lines converged into darkness at the top of the tank. Jaroslav could not escape the sound, which shook his skull when he touched his head to the floor, but when he raised his face the acoustic distortions achieved balance and clarity emerged.

"DIOGENES, THIS IS BASECAMP, CAN YOU READ ME, UNGER?"

Jaroslav thought fretfully that Basecamp could not be communicating by conduction, as he had attempted with Doug, for the Skyline was far too long to carry vibrations, and no cable accompanied it, as it was not just being paid out but stretching.

"IF YOU CANNOT USE RADIO YOU HAVE NO WAY TO REPLY. WE WILL ASSUME YOU CAN HEAR US."

Jaroslav wondered how communication could proceed only one way, then abruptly he had it. The realization seemed to bring things together in his mind. Basecamp was hitting the top of the tank with microwaves or a laser, causing the entire shell to ring like a tympanum.

"WE ARE NOTING DECREASED DRAG ON THE SKYLINE, AND ASSUME THAT YOU HAVE FIRED YOUR THRUSTERS OR JETTISONED MASS. IF YOU ARE NOT STABILIZING LIFE SUPPORT, PLEASE ASSIGN HIGHEST PRIORITY TO SENDING A REPLY HOWEVER BRIEF."

The dimensions of this problem, smaller and technical, calmed Jaroslav slightly, and his mind's eye darted among the darkened rooms below. He suddenly rose to his knees and began feeling for the hatchway, and within

minutes was back down in the bunkroom. The air was noticeably cooler, but Jaroslav forced that from his mind.

He pulled open the drawers beneath the bottom bunk and rifled their contents, producing at length a palm-sized plastic box. Unger insisted on the value of being able to record his thoughts or observations wherever he was, and was as certain to have brought a spare as he was to have had his work model with him in the observation bay. Jaroslav turned the device over in his hands, and sought the button he had seen Unger use. A tiny display screen appeared in the darkness.

Jaroslav depressed a stud and the digital display began counting. He said, "Power out, Unger lost. Undercarriage evidently severely damaged, life module intact but losing heat. This will be only message. Pull me up."

He clicked off and made his way into the control room. Adjusting the recorder's display to maximum brightness, he passed it low over the radio controls, allowing him to read their settings. Most were already set for transmission to Basecamp. Jaroslav opened the cartridge deck, which fortunately popped up manually, and inserted the spicule from the recorder. He touched the Transmit button, and left it.

Jaroslav then pulled the pressure suit off the wall and fumbled with the power pack on its belt. Removing the console panels for the radio, he felt about within until he pulled out two wires, an act that would court electrocution were there any power in the system. Jaroslav worked for several moments with the suit in his lap, then moved carefully away and illuminated one section of exposed circuitry with the recorder. Holding his screwdriver by its plastic handle, Jaroslav nudged a wire against a coupling.

There was a bang and a spray of sparks. Lights on the control board blinked once.

Jaroslav stood and examined the displays on the board. They showed that his message had been dispatched by the power surge.

Slowly Jaroslav climbed back to the main tank. He found the drug vials bunched at the nadir of the tank's shallow bowl, and sat looking them over as he awaited his reply. He decided that he could not sedate himself, though the temptation clamored through his pain, but would take several local anaesthetics, along with a mild, long-acting stimulant. He would wait until he was in his bunk, tilted now almost to the angle of a crash couch, before administering the doses.

The clangor as the beam struck the top of the tank, like the clearing of an immense throat, rumbled around him as Basecamp got their echo back, confirming contact, and fine-tuned in.

"BASECAMP TO DROSHKA, PROJECTIONS ALLOW NO POSSIBILITY OF HOISTING VESSEL WITHOUT SIGNIFICANT THRUST.

FULL BUOYANCY. POTENTIAL INSUFFICIENT TO SUPPLANT THRUST. PLEASE USE BACKUP SYSTEM TO ADVISE EXTENT AND NATURE OF ELECTRICAL FAILURE."

It was, Jaroslav realized, a death sentence—or the acknowledgment that one had already been written out, in terms more precise than any prose. Should Jaroslav indeed have no power with which to reply, he could not control even the tiny thrusters that projected from the sides of the sample tanks, and would continue to descend, gently but uncontrollably, through the depths of Neptune's atmosphere.

Some time later, the *Diogenes* gave a final jolt, then settled almost gently to rest. Jaroslav had hit bottom.

There was pain somewhere in the middle distance, and a voiceless urging that he get up, but Jaroslav turned in an analgesic eddy, weighted by heavy gravity yet gliding in the slowfall of his *Centaur* childhood. The surface beneath him, unyielding and cold where it pressed hardest, suggested in its curve great spherical spaces—humid greenhouse modules nodding beneath shafts of light, public causeways that arched out of sight. In the early years the public spaces thronged, and Jaroslav's days were spent with schoolmates and child-sized teaching robots with patient voices and display screens for heads. Excursions "upcountry" toward the axial midpoint brought lower gravity and astonishing delights, but small children were kept near the living levels where the gravity was as great as Newellay's, almost as great as Earth's. Balls lobbed high in the playing courts seemed to pause at their upper trajectories, and could veer bewilderingly when bouncing off walls.

Jaroslav never knew for certain when the troubles began, and could remember now only a slow decay of services that he did not then wonder at, a withdrawal of high spirits that seemed merely to pace the loss of his earliest, unalloyed happiness. The crossing of Saturn's orbit was not greeted with the revelry that Jupiter's had seen, though nothing perhaps could have matched the magnificence of that first celebration in little Jaro's eyes. When he was eleven, students began sharing consoles; by then the older ones were saying that things were not going well with the life maintenance systems, that resources must be directed toward achieving projected efficiencies. Jaroslav and his classmates did not understand why help did not come as the *Centaur* passed the successive outposts of human habitation, but guessed it had to do with their general confusion as to whether the manning and dispatch of the *Centaur* to Neptune was an honor for its company or a banishment.

By the time he was fifteen Jaroslav's education was entirely directed by teachers, personnel reassigned in a desperate expedient to save the generation growing to adulthood on board from skilled barbarism. Most

of Jaroslav's days were spent vacuuming algae off the surface of knee-deep ponds where it was growing too thickly and spraying it into fresh flats. Like his peers, he had a good practical knowledge of the workings of the *Centaur*—his world—but knew nothing he had not seen, indeed seen, thumped and worked upon. He worked well, for survival now demanded it.

"I tell you, Jaro," said Clarice, who was assigned to teach physics because, her students suspected, she had not worked well enough in the ceramics plant, "there has never been a generation in the history of space who has had to grow up more quickly, and knows less about the universe beyond their hull. You are almost frighteningly unworldly, and emotionally you are hypertrophied where you aren't stunted. If I could show you the *books*—if they had just been printed out—" And so on. Jaroslav resented the implication that he could somehow not read—he read operating manuals, very properly, as though his life or limbs depended on it—and cared nothing for a civilization he could not remember. Those three or four years older were getting screen time and training to be physicians or planetary chemists; they spent less time working on the life systems and, as far as Jaroslav was concerned, were less important.

He grew up working, as everyone did, struggling to keep the system going until they could reach Neptune, where limitless hydrogen would guarantee energy freedom. That the voyage was taking eighteen years—the Proxima probe would hardly take longer—was due to the enormous cost of accelerating the mass of the *Centaur*. The system had to be self-sustaining anyway, so sending a slow ship would cost only the colonists' time. And nothing was cheaper than the colonists' time.

When the blue-green disk grew in the view screens Jaroslav looked upon it with expectation, truculence, and an unadmitted strain of fright. The rings and the twenty strange moons meant more to the colony than Neptune itself did, so he bent to learning something about them. Triton, he was repeatedly told, was as close to Neptune as the Moon was to Earth (which meant nothing to him), and might suffer calamitous quakes as a consequence of gravitational pull. It would be mined for metals and easy methane, should the latter not prove abundant in the rings, but would probably never be inhabited. With a methane atmosphere and nitrogen seas, Triton would provide minerals that, added to the ice in the rings, would yield the elements for organic compounds. That Triton's world-ocean had a tidal bulge kilometers high was supposed to create immense complications, but Jaroslav never understood tides.

For the first year they held a Lagrange point and sought to plunder the rings, but little could be made to go right. As predicted, the proper type of hydrogen was plentiful, but isolating it proved too expensive, and using impure quantities for the fusion reactors threatened to stress them

beyond their weakened tolerances. For that first winter they *burned* methane, which Christobel, using one of those incomprehensible allusions favored by the Earthborn that so angered Jaroslav, ruefully likened to "eating the sled dogs."

Their attempts to settle greater Neptune had awakened the interest of humanity, and the urgency of the Earthborn and older Newellayans to prevail took on the tinge of those political chauvinisms that had first led to the dispatch of the Neptune colony, and meant less than nothing to Jaroslav. He was indifferent to whatever had alienated his people from the rest of the settled worlds, for differences mean nothing when your own kind is all you know. Exertion for survival brought its own justification.

When they decided to send a simple probe into Neptune's atmosphere, Jaroslav helped construct the bathyscaphe that had been chosen as the easiest and safest possible model. Basecamp, one of those large chunks of ring material known as the Foothills that circled Neptune inside the ring proper, was moved to a synchronous orbit and outfitted with a temporary station facility. The *Diogenes*, with a crew of two, would be lowered on a Skyline deep into the atmosphere of Neptune, in a quick mission to be completed during one of the predictable lulls in the planet's hellish weather. One crewmember would conduct the experiments, the other would know the ship. If the first would inevitably prove a Newellayan, political considerations prompted that the second number among those who grew to adulthood during the Voyage, and who had become increasingly disaffected with the dominance of their Earthborn elders. Jaroslav accepted his selection as his due, for he knew the rudimentary *Diogenes* inside and out.

Unger appeared to like his younger crewmate, whose ignorance seemed to amuse him without diminishing his respect for the boy's skills. He attempted to explain the various experiments they would conduct, and the peculiar dynamics of Neptune's weather, but Jaroslav grew resentful at the repeated reminder of events and forces beyond the *Diogenes*' shell. Unger in turn was often irritated by Jaroslav's habit of referring to all the ship's elders, including the majority who had spent their lives in Newellay or smaller habitats, as "Earthborn." Jaroslav considered telling him that his last teacher had reported ample precedent for such linguistic conflation, but forbore because he liked the older man. Besides, the vaunted expert had never been on a planet either.

When Basecamp attained the low, fast orbit that paced Neptune's rotation, the *Diogenes* was dropped from the Skyline's spinneret as a spider might descend from a branch. Gravity increased by degrees, and Jaroslav ran systems checks while Unger watched his instruments, each merely glancing, though for different reasons, at the first wisps of blue

translucence visible in the ship's single porthole. After sixteen hours Jaroslav had retired to his bunk, to be thrown to the floor where, in confusion and pain, he imagined himself still to be, pinned by weakness and full surface gravity to a bulkhead that impressed itself as hard and bewilderingly uneven as it grew steadily colder.

Jaroslav moved his head to evade the formless anxiety that pushed against his stupor, and was rewarded with a bolt of pain through his face. He froze, then lifted his arms cautiously, encountering drag and a constellation of smaller pains. He opened his eyes. Blackness receded, and radial lines of light emerged broken by his suspended hands, which he refrained from touching to his nose.

The stillness beneath him differed from the imperceptible sway of the last twenty hours, and Jaroslav rose painfully to a crouch, impelled finally to motion without knowing why. The open hatch was now near the tank's lowest point, and Jaroslav feared suddenly that he would lose his footing and fall through. He peeled one of the lighting strips from the tank wall and wound it around his forearm. Carefully he lowered himself into the specimen bay and thence to the life module, shadows sweeping about him with his every move.

The life module was colder now, and Jaroslav's panting billowed visibly before him. He pulled on his pressure suit and immediately felt warmer, although its weight hung upon him like chains. The suit would conserve his body heat against any temperature the life module might soon reach, though this would not hold where Jaroslav had to go.

Moving clumsily about the control room, Jaroslav found his helmet and fastened it on. The systems lights winked on within, showing suit power seriously depleted from the short circuit Jaroslav had used to produce the power surge. He nodded, unsurprised.

The light strip, which Jaroslav had transferred to the pressure suit, did not adhere well, and Jaroslav knotted it like a tourniquet. Slowly he began opening the floor hatch to the airlock, laboriously removing the floor panels and underlying bolts.

As Jaroslav began loosening the final bolt the hatchway blew inward, releasing a jet of blue-white gas into the room. The spray that struck Jaroslav's arm felt immediately cool through the suit, and frost clouded his faceplate. The air was filled with an ammoniac blue that deepened as the pressure increased; by the time the gusts abated and an even coolness swirled about him, Jaroslav could see nothing but a submarine glow around his knotted arm.

He had suspected that the airlock may have been breached, but was stunned by the pressure differential; clearly no airlock remained. Ja-

roslav looked around the drowned room, which trembled faintly with the pings of contracting metal. There was no turning back now.

Feeling about the floor, Jaroslav found the hatch and climbed down the rope ladder, which ended in tatters after five rungs. Reluctantly he activated the high beam on his helmet and peered about.

Unger had told him that the surface of Neptune would resemble the bottom of the sea, which possibly it did. Beyond the slender beam of his headlight, that color closest to the black closed in rapidly, brightening to a deep mauve only when he looked up past the ship. The *Diogenes* was resting at an angle upon an uneven surface whose features the beam could not reach. Most of the ship's undercarriage was missing; Jaroslav could see dangling metal where the main engines and fuel tanks had been. He killed the beam after a single sweep and descended hand over hand to the bottom rung, from which he could feel his toes brush the ground.

Whatever else, he thought, straightening from his brief drop to look about the chill and turbid landscape, I am the first human to stand upon Neptune. The sensation could not have been stranger had he been standing on Earth.

His soles crunching underfoot, Jaroslav walked carefully around the wreck of the *Diogenes*. The remaining structure of the ship comprised the disk of the life module surmounted by the lobed specimen bay, the spherical main sample tank ringed by four smaller tanks. The five shells were in turn encased in a metal dome, which had been designed to equalize wind flow over the ship's surface lest the *Diogenes* twirl like a pendant. Although Jaroslav could not see it, he knew that the Skyline ran straight up from the dome into space, still under tension after the ship had come to rest.

Jaroslav had no delusions that the *Diogenes* could be hoisted to safety. He remembered now that the Skyline could bear little stress, having simply allowed the *Diogenes*, buoyed by its empty tanks to a manageable weight, to descend through the atmosphere without need for braking jets. Even now, with the massive undercarriage gone and the sample tanks still light with Earth-pressure air, the *Diogenes* would not rise a meter without its shattered rockets.

As Jaroslav stood before the hulk, a faint pull began to draw on him from one side, which he took several confused seconds to realize was a wind, towing steadily in the dense atmosphere. The realization prompted a sudden recollection, something Unger had said about the need to get aloft before the weather changed. He could not remember the details.

Jaroslav strode forward, realizing with a start that his soles had begun to go numb, and began feeling along the hull of the *Diogenes*. The ship's exterior was studded with handholds, and Jaroslav quickly found a rung

and attempted to pull himself up. Contusions shouted across his body, an insurrection of injured muscles. Jaroslav swayed, almost sickened by the pain, but held, and after several seconds pulled both feet clear of the ground. The frozen surface would drain away heat faster than boot contact with hull or air, and Jaroslav could not afford to turn up his suit.

Jaroslav could not discern the direction of the wind, but knew he had to get into its lee. Wind-chill was a mystery to him but he understood how moving water could rob an object of heat. Five rungs up, a footledge encircled one tank, and Jaroslav began to edge along it, new muscles protesting at the exertion. When the elephantine nudge of breeze seemed to abate he paused, clinging to the hull like a winter fly, and tried to think.

Jaroslav knew his only hope lay in jettisoning enough mass from the *Diogenes* to float the empty tanks, which might conceivably rise high enough to allow Basecamp to reel him in. He could think of no way to achieve this, and more disturbingly, neither evidently could Basecamp, which had computer projections and the ship's designers to call on. The flooded compartments of the life module could not be blown, nor the sample tanks cut free. Stabilizing thrusters were mounted on the hull, but their electrical systems were decapitated, their fuel tanks gone. Jaroslav mentally traced their fuel feeds and cables down longitude lines to the undercarriage, and abruptly he had something.

A fuel line ran the circumference of the *Diogenes* along the underside of the ledge Jaroslav stood on. It served as a backup route so that propellant could still reach all four thrusters if a direct line was broken. The lines had stop-valves at every meter, so that a rupture would not drain the fuel tanks. Consequently the four severed feeds and connecting loop still held high-grade fuel.

Jaroslav entered the fuel lines' diameter and estimated lengths in the suit computer, although the displayed result—about fourteen liters—told him little in terms of effectiveness. He began to sidle painfully along the ledge, reaching a thruster only after coming back into the wind, which now seemed stronger.

Jaroslav hooked one elbow through a strut and turned his headlight on low. The thruster's casing was compatible with suit tools, and Jaroslav opened the panel without difficulty. The solid state circuitry within was not amenable to impromptu rewiring as the power cables inside had been, but what Jaroslav wanted to do would not require finesse. It would probably get him killed, but Basecamp would sense it with their infrareds and know what he had tried.

The auxiliary propulsion system was monopropellant, which fit Jaroslav's plans, and the fuel, a high energy borohydride, was under pressure, if not as great as the surface atmosphere's. Jaroslav uncoupled two

lengths of fine cable from around his waist and clipped them into place within the circuitry. Playing out the line before him, Jaroslav backed slowly around the dome's circumference until he found the service hatch in the specimen bay. Atmospheric pressure posed no impediment to pulling it open: as Jaroslav expected, the specimen bay was now filled with methane. He crawled into the darkness within.

It was still inside but probably no warmer: Jaroslav hoped that the stresses of the temperature drop had weakened the struts supporting the tanks. The Skyline, he knew, was anchored not to the dome but to the main tank beneath it; that too suited his purpose. Moving about the lobes by the dim effulgence of his lighting strip, Jaroslav felt momentarily protected, the lone individual in a vaulted, insular universe. He shook off the thought with an effort: the anesthetic quality of adrenaline was another trap.

Jaroslav detached the trailing wires from his suit and began to climb the rungs of the nearest tank. He was immediately assaulted by fatigue, and swayed from the rungs as black spots erupted before his eyes, wondering stuporously what the surface gravity was. He ascended three steps very slowly, then clipped a lifeline to one rung, fearful that a fall of two meters would kill him.

When he reached the point where the swell of the main tank touched the side he clung to, Jaroslav studied the connecting strut, which had been welded and could not be unfastened. He banged on it several times with his spanner until sudden exhaustion made him swoon, and he crawled shakily back down. On the bay deck the temptation to lie down came over him so strongly he had to grip a rung with both hands.

The second tank was dealt with in the same way, although Jaroslav realized upon regaining the deck that he had no idea how long it had taken. He was moving cautiously toward the third, fanatically concerned that he not reverse his steps and re-ascend the first, when the deck lurched slightly beneath his feet. Jaroslav's care in taking his steps told him at once that the deck level had altered, and the *Diogenes* was settling into Neptune's frozen crust.

Quickly, legs trembling, Jaroslav made his way to the hatch of the main tank, which he confirmed was sealed tight. On the deck beneath the hatch he picked up the voice recorder, which he realized must have slid through the hatchway. Jaroslav snapped it to his belt and returned to the twin cables, which he attached to the power pack of his suit. Looking about the darkened bay for the point of greatest shelter, Jaroslav retreated to the narrowest space beneath the underside of the main tank and wedged himself into it. He clipped his lifeline to a handhold, checked the leads of the cables, closed his eyes, and depressed a switch.

The concussion seemed to strike him from all sides, an imploding front

that knocked him out of his body. Jaroslav thought he tasted blood but heard and felt nothing, or rather could assimilate no sensation but that within his mouth, while the rest raged elsewhere, uncomprehended. He thought nothing, but was suffused with awareness of self, a sufficiency that precluded urgency or impulse in any direction.

How long this lasted Jaroslav could not tell, but the tugging he at length grew aware of had had some part in the plenum of his being long before attention found its focus. Pain still found no place, but saliences of feeling dimpled his consciousness, and without wondering at it Jaroslav distantly knew that what he felt was acceleration, gentle but distinct. When at last he opened his eyes he was already feeling a cool wash picked with premonitions of sharper sensation, and Jaroslav turned his neck painfully to see around him a field of deep color. The main tank of the *Diogenes* had burst the ruptured bounds of the ship like a bubble, and was rising.

Exhilaration gave way within seconds to panic, and a sudden terror with the realization that he was dangling from the lifeline hooked to his belt. Jaroslav's senses told him that he was turning slowly, and he froze. With an effort he arched his back, and as he felt his head rise higher than his waist Jaroslav groped about the darkness above him. His fingers brushed smoothness, and after several seconds closed around a handhold. With the exertion of frenzy Jaroslav pulled himself up against the tank and thrust both forearms through the rungs. He used a second lifeline to lash himself against the surface, and, securely fast, was able to consider his position.

The air tank was rising on the ballast force of its lighter gas content, perhaps augmented by whatever heat the tank absorbed when the fuel line encircling it burst. The explosion must have gone essentially as Jaroslav envisioned, its force blown inward by Neptune's surface pressure to rupture the dome and outer tanks surrounding the central shell. If tatters of debris were clinging to the tank, he realized, its lifting power would be greatly reduced. Jaroslav activated his headlight and peered about the underside above him, but could see nothing beyond the dim curvature of metal horizon.

Lift would be a problem whether there was debris clinging or not, as Jaroslav had known without pausing to think about it. There could be no question of his makeshift balloon ascending high into Neptune's atmosphere: as with all planets, Neptune's atmosphere dissipated much faster than its gravitational strength, and the refloated *Diogenes* would soon reach that stratum where its lift and weight attained equilibrium. From there the cooling of its contents would bring it assuredly down. Even assuming that the Skyline was exerting some pull owing to elas-

ticity, the shell—a metal artifact—would rise only from the thickest depths. It would be far too low for rescue.

Jaroslav let his head loll, since it had begun aching in its raised position. Dark shapes moved across his faceplate, and when Jaroslav activated his helmet light he saw its interior was streaked with blood. A catalogue of his injuries would serve no purpose—he had worked through double shifts throughout adolescence by denying pain with tricks learned from military men—but he should probably know whether hemorrhaging threatened vital suit functions. Jaroslav flexed his fingers, then brought up his knees slowly—a mistake, for his vision went red with sudden agony and he instinctively attempted to double up against his bonds. Waves roiled through his body and crashed against his helmet; Jaroslav could only hold on while they slowly subsided.

He was beginning to breathe more evenly when the first blow struck the tank. Jaroslav was thrown against his bonds, thinking wildly that he could not have done himself another injury, when a second, more glancing blow produced a higher reverberation, allowing him to recognize the first. He thought with great clarity: *Flung through the air*. A staccato burst rattled like gravel thrown against a bulkhead. Jaroslav held still, eyes straining for signs of motion in the darkness, until the impacts and vibrations diminished.

At his belt Jaroslav found the voice recorder, which he brought up to touch against his helmet. "Recording, ah, 1632 hours. Rising at an indeterminate rate, altitude unknown. I don't know how you will recover this, but listen: there are projectiles moving through the lower atmosphere. Maybe ice thrown by the weather; does this happen on Earth? Probably what hit the ship originally. You will have to watch for it next time."

Jaroslav let his head hang, wondering what to add, then saw the rivulets of blood change course and run at a new angle across his field of vision. Concentrating on his extremities, Jaroslav realized that one side was colder than the other, and that his center of gravity was shifting. The shell was rolling slightly, dragging upon the Skyline at the push of quickening winds.

He was wondering about this when the ship spoke.

Basecamp to Droshka, we have detected ascending mass and assume that you are on it.

The voice was fuzzy yet resonant, as though relayed through a series of poor connections. Jaroslav thought in lucid objection that no radio beam could reach his suit antenna through the bulk of the tank, and then he understood.

Estimates of your lift potential are being made. We understand that you cannot reply.

Basecamp was using a tight beam on the tank again, which Jaroslav could hear through contact with his helmet. The vibrations against his back were awakening aches throughout his body.

Jaroslav hung free, ascending through registers of slowly brightening color. He knew there was nothing he need or could do, and awaited word from above as lethargy crept over him.

Basecamp to Droshka, we are attempting to augment lift of ballast tank by heating surface with microwaves. We assume you are beneath tank and shall play beam over upper hemisphere. Do not attempt to climb tank while irradiation is in progress.

Jaroslav smiled at that. The faint tug of wind pulled against him like a hammock, and he wondered if the metal shell would warm enough to keep him alive. As the hull behind him began to vibrate faintly Jaroslav thought he could hear the whistle of wind breaking over him. If more floes were dislodged to come sailing through the darkness, he thought uneasily, there would be no means of evading them.

An enormous creaking filled the space behind him, and Jaroslav cried out as the lines holding him tightened. The reborn *Diogenes*, swelling however faintly as it warmed, was pressing against the rigging with which Jaroslav had secured himself. Working with panicky fingers, he untwisted one clip and opened it, causing his weight to pull hard against his hooked forearms. Carefully he freed a second line that was slowly seeking to garrote him, and his full suited weight came to rest on his limbs. His body cried out, and Jaroslav leaned his head back to touch the hull, hungry for heat that might keep his muscles from cramping.

Jaro, this is Lampert. Your ballast balloon has been heated to its maximum point of safe distension, and no further lift can be induced at this time. We are trying to project ascension potential. You are presently at an altitude of thirty-eight kilometers out of eighty you must reach for the rescue attempt.

So those are the numbers, Jaroslav thought. He was better at meters than kilometers, but saw the proffered ratio clearly enough. Each additional klick would be harder to attain as dwindling air pressure vitiated lift. He would not get much higher than this.

Something was running across Jaroslav's faceplate, but it was not blood—nor, he realized with a start, was it on the inside. Colorless fluid streamed down his helmet as along a pane, and a deep chill spread over his shoulders. Frozen material had collected on the metal skin—because of the wind?—and was now melting, with whatever did not sublime dripping onto him. Jaroslav wanted to cheer: more lift, but the thermal conductivity of the liquid would freeze him.

Jaroslav kicked his feet, fearful of ice forming on them. While I'm conscious, he thought, I'll kick.

Jaroslav, we have a weather reading. You are running with the tide, and will derive additional lift for possibly an hour. We don't think this will suffice, but your tank will have lost some gas through its seal by then and will perhaps take additional heat. I am sorry you cannot reply.

Jaroslav brought up the recorder. "Acknowledged." He did not understand most of that, but recognized the sound of good news. With weakness came a rush of feeling, and Jaroslav sought something to say. "I should tell you the surface was solid where we touched down . . . oh, you'd know that." At the first sign of irreversible descent he would clip the recorder to a rung and let go. The shell's sudden rise would doubtless tip them off, but they would try to recover anyway.

The ship burst into a glory of violet sky, with clouds like dirty fabric dropping steadily away. Stars looked upon him from all sides, twinkling against a background of deep color shockingly unlike the unwavering blackness of space. Near one limb of the tank, a single star shone too brightly to be looked at: the Sun, almost visible as a disk.

The curvature of Neptune was obscured by the unevenness of the cloud cover, but Jaroslav had spent his life thinking of planets as spheres not surfaces. What worried him now was that the clouds no longer appeared to be receding as rapidly. He watched the uneven horizon for several minutes as he flexed his ankles nervously, but apparent motion was imperceptible.

Jaro, we have been tracking you since you broke the cloud cover, and the thinner air seems to be slowing your ascent. We think you had better come up now.

What? Jaroslav thought.

The pickup is going to be more complicated than we thought, and we want you to climb the tank rungs and get to the Skyline. We know this will be very taxing for you, but you cannot rise much farther, and—

Oh, no.

Jaroslav raised his helmet from contact with the shell, and the voice faded. He hung from the tank perhaps halfway from bottom to equator, its bulk looming over him. There was no way he could do it. Jaroslav rested his head against a rung.

—the point where we have to hold the beam steady just to keep you from dropping. Your hatch seal is deteriorating rapidly, and we can give it ten minutes maxi—

He pulled his head away. The clouds roiled below, enormous as nothing in the *Centaur* had ever been. Think of it as a task, he told himself. Freeing one arm from its rung, Jaroslav found the clip of his lifeline on his belt, and reached to hook it to a higher hold. He repeated the act with the second line, then began painfully to free his ankle and remaining arm from their wedged positions. Jaroslav started to shift his weight

between rungs, but his stiffened grip failed almost at once and he fell the length of his lifelines, jerked to a halt staring downward into the clouds.

It almost ended there. Jaroslav closed his eyes, swung in the brief compass of his tether as blood pattered onto his faceplate, and waited for oblivion. Instead, he slowly tilted his head below his chest, and his nose gorged with pain. Jaroslav reached behind him to grasp a line, and pulled himself gradually erect. He looked up at the hovering air tank, motionless against a brighter violet than had been visible below him, and began to pull himself upward.

It was never again as hard as that, not even when his foot slipped from a still-iced rung and Jaroslav slammed his kneecap against its edge. As he crossed the equator light broke over him, indistinct in the smeared pink of his faceplate. Jaroslav tried to disregard it as he groped single-mindedly for the succeeding rungs, intent that even the harbingers of delirium not deflect him.

The upper hull seemed faintly warm to his touch, but Jaroslav no longer trusted his sensations, which had left his legs entirely.

The Skyline rose from the hull's top as from an ornament, a featureless cable half a meter across. It was, Jaroslav knew, not one molecule but hundreds, braided and cultured like genes. As he advanced on hands and knees across the now nearly horizontal handholds, Jaroslav fixed his gaze upon it, seeing the reinforced collar that held it to the hull, its surface ringed with holds for his tether.

With his feet planted on either side of it, Jaroslav encircled the Skyline with his lifeline and stood slowly. Looking up into the radiance overhead, Jaroslav saw through an unclouded corner of his faceplate a gibbous disk of liquid blue. Triton was high in the sky—as close as the Moon was to Earth, Jaroslav recalled, and even larger. Neptune's reach had drawn the retrograde satellite over eons to a startling proximity, which now raised tides in Neptune's ocean of atmosphere. It was this, Jaroslav realized dimly, that Unger had wished to keep ahead of: moonrise and high tide, the welling of winds that had raised the *Diogenes'* makeshift balloon a few clicks higher than it otherwise would have managed.

"Jaro," said Lampert's voice, and it was clearer than he had heard it before, the tight beam falling directly onto his helmet, "we think we detect you on topside. You should strap yourself tight to the Skyline, because we are going to have to cut away the tank with a laser. It's a very risky maneuver, and, well, you should keep your hands in as close as possible. I don't like the margins for error we have to accept. We're going to start a countdown at ninety seconds, because time is very tight. I wish we could hear you."

"Roger," said Jaroslav, bringing out the recorder. He clipped it to the

lifeline, then wrapped the second line round his waist for good measure. He could not feel to control his legs, but the freezing of the suit's blood-soaked lining would hold him upright. "You'll hear this."

The sky was beginning to grow darker, though Triton continued to brighten. These contradictions did not disturb Jaroslav, who was not accustomed to cycles of daylight. He wrapped his arms round the Skyline, whose cross-linked strands were not designed to absorb heat, so did not feel cold. *No more wind*, he thought, for the Skyline rose straight up, as abstract and ideal as a vector he had ascended to grasp. ●

NEXT ISSUE

Recent Nebula Award-winner **Orson Scott Card** returns to *IASfm* next issue with our lead story for January, "America." A sequel to his popular story "The Fringe," Card's "America" is a powerful, bittersweet tale of a young boy's obsession with a mysterious Indian woman, and the stunning consequences for the whole world that unfold from it. Our January cover illustrates a scene from the second installment of **Michael Swanwick's** exciting new novel *Vacuum Flowers*, depicting the geodesic/space Sheraton complex, surrounded by the enigmatic Transit Ring, as it reaches the orbit of Mars...

Also in January: **Walter Jon Williams** spins a taut tale of treachery and revenge in the aptly-named "Wolf Time"; **Gene Wolfe** gives us an unsettling look into a very odd profession in "The Peace Spy"; **Rudy Rucker** takes us to an Old-Time Revival Meeting for Grunji Mutants in the funny and thoroughly outrageous "Bringing in the Sheaves"; and new writer **John Barnes** returns to these pages with "Digressions From the Second Person Future," a wry little story that will make you think twice about the Ultimate Evolutionary Destiny of all those pet mice and hamsters and gerbils you had as a child... Plus an assortment of columns and features. Look for the January issue on your newsstands on December 16, 1986.

Or subscribe now, and miss none of the year's worth of great stories you'll see in *IASfm* in 1987. Coming up in our pages this year: big new stories by **Bruce Sterling**, **Luclius Shepard**, **James Tiptree, Jr.**, **Robert Silverberg**, **Orson Scott Card**, **Isaac Asimov**, **Gwyneth Jones**, **Kim Stanley Robinson**, **Harry Turtledove**, **Pat Murphy**, **Jack McDevitt**, **Neal Barrett, Jr.**, **Andrew Weiner**, **James P. Blaylock**, **Sharon N. Farber**, **M.J. Engh**, **Tim Sullivan**, and many, many others. So don't take a chance on missing a single month out of the *IASfm* year ahead—subscribe now!



LAUGH by Harlan Ellison TRACK

One of the most acclaimed and controversial figures in modern letters, Harlan Ellison has produced forty books and over nine hundred stories, articles, essays, and film and television scripts. He is a multiple award winner, including the Nebula, the Hugo, the Edgar, and the Writer's Guild of America Award for most outstanding television script. Here he tells us the bittersweet and funny story of a woman who got a little too wrapped-up, quite literally, in television viewing . . .

I loved my Aunt Babe for three reasons. The first was that even though I was only ten or eleven, she flirted with me as she did with any male of any age who was lucky enough to pass through the heat of her line-of-sight. The second was her breasts—I knew them as “titties”—which left your arteries looking like the Holland Tunnel at rush hour. And the third was her laugh. Never before and never since, in the history of this planet, including every species of life-form extant or extinct, has there been a sound as joyous as my Aunt Babe's laugh which I, as a child, imagined as the sound of the Toonerville Trolley clattering downhill. If you have never seen a panel of that long-gone comic strip, and have no idea what the Toonerville Trolley looked like, forget it. It was some terrific helluva laugh. It could pucker your lips.

My Aunt Babe died of falling asleep and not waking up in 1955, when I was twelve years old.

I first recognized her laugh while watching a segment of *Leave It to Beaver* in November of 1957. It was on the laugh track they'd dubbed in after the show had been shot, but I was only fourteen and thought those were real people laughing at Jerry Mathers's predicament. I yelled for my mother to come quickly, and she came running from the kitchen, her hands all covered with wax from putting up the preserves, and she thought I'd hurt myself or something.

“No . . . no, I'm okay . . . listen!”

She stood there, listening. "Listen to what?" she said after a minute.

"Wait . . . wait . . . *there!* You hear that? It's Aunt Babe. She isn't dead, she's at that show."

My mother looked at me just the way your mother would look at you if you said something like that, and she shook her head, and she said something in Italian my grandmother had no doubt said while shaking her head at *her*, long ago; and she went back to imprisoning boysenberries. I sat there and watched The Beav and Eddie Haskell and Whitey Whitney, and broke up every time my Aunt Babe laughed at their antics.

I heard my Aunt Babe's laugh on *The Real McCoys* in 1958; on *Hennessey* and *The Many Loves of Dobie Gillis* in 1959; on *The Andy Griffith Show* in 1960; on *Car 54, Where Are You?* in 1962; and in the years that followed I laughed along with her at *The Dick Van Dyke Show*, *The Lucy Show*, *My Favorite Martian*, *The Addams Family*, *I Dream of Jeannie*, and *Get Smart!*

In 1970 I heard my Aunt Babe laughing at *Green Acres*, which—though I always liked Eddie Albert and Alvy Moore—I thought was seriously lame; and it bothered me that her taste had deteriorated so drastically. Also, her laugh seemed a little thin. Not as ebulliently Toonerville Trolley going downhill any more.

By 1972 I knew something was wrong because Aunt Babe was convulsing over *Me and the Chimp* but not a sound from her for *My World . . . And Welcome To It*.

By 1972 I was almost thirty, I was working in television, and because I had lived with the sound of my Aunt Babe's laughter for so long, I never thought there was anything odd about it, and I never again mentioned it to anyone.

Then, one night, sitting with a frozen pizza and a Dr. Brown's cream soda, watching an episode of the series I was writing, a sitcom you may remember called *Misty Malone*, I heard my Aunt Babe laughing at a line that the story editor had not understood, that he had rewritten. At that moment, bang! comes the light bulb burning in my brain, comes the epiphany, comes the rude awakening, and I hear myself say, "This is crazy. Babe's been dead and buried lo these seventeen years, and there is strictly *no way* she can be laughing at this moron line that Bill Tidy rewrote from my golden prose, and this is weirder than shit, and *what the hell is going on here!?*"

Besides which, Babe's laugh was now sounding a lot like a 1971 Pinto without chains trying to rev itself out of a snowy rut into which cinders had been shoveled.

And I suppose for the first time I understood that Babe was not alive at the taping of all those shows over the years, but was merely on an old laugh track. At which point I remembered the afternoon in 1953 when

she'd taken me to the Hollywood Ranch Market to go shopping, and one of those guys had been standing there handing out tickets to the filming of tv shows, and Babe had taken two tickets to *Our Miss Brooks*, and she'd gone with some passing fancy she was dating at the time, and told us later that she thought Eve Arden was funnier than Lucille Ball.

The laugh track from that 1953 show was obviously still in circulation. Had been, in fact, in circulation for twenty years. And for twenty years my Aunt Babe had been forced to laugh at the same old weary sitcom minutiae, over and over and over. She'd had to laugh at the salt instead of the sugar in Fred MacMurray's coffee; at Granny Clampett sending Buddy Ebsen out to shoot a possum in Beverly Hills; at Bob Cummings trying to conceal Julie Newmar's robot identity; at The Fonz *almost* running a comb through his pompadour; at all the mistaken identities, all the improbable last-minute saves of hopeless situations, all the sophomoric pratfalls from Gilligan to Gidget. And I felt just terrible for her.

Native Americans, what we used to be allowed to call Indians when I was a kid, have a belief that if someone takes their picture with a camera, the box captures their soul. So they shy away from photographers. AmerInds seldom become bank robbers: there are cameras in banks. There was no graduation picture of Cochise in his high school yearbook.

What if—I said to myself—sitting there with that awful pizza growing cold on my lap—what if my lovely Aunt Babe, who had been a Ziegfeld Girl, and who had loved my Uncle Morrie, and who had had such wonderful titties and never let on that she knew *exactly* what I was doing when I'd fall asleep in the car on the way home and snuggle up against them, *what if* my dear Aunt Babe's soul, like her laugh, had been trapped on that goddam track?

And what if she was in there, in there forever, doomed to laugh endlessly at imbecilic shit rewritten by ex-hairdressers, instead of roaming around Heaven, flirting with the angels, which I was certain should have been her proper fate, being that she was such a swell person? What if?

It was the sort of thinking that made my head hurt a lot.

And it made me feel even lower, the more I thought about it, because I didn't know what I could do about it. I just knew that that was what had happened to my Aunt Babe; and there she was in there, condemned to the stupidest hell imaginable. In some arcane way, she had been doomed to an eternity of electronic restimulation. In speech therapy they have a name for it: cataphasia: verbal repetition. But I could tell from the frequency with which I was now hearing Babe, and from the indiscriminate use to which her laugh was being put—not just on *M*A*S*H* and *Maude*, but on yawners like *The Sandy Duncan Show* and a mid-season replacement with Larry Hagman called *Here We Go Again*, which

didn't—and the way her laugh was starting to slur like an ice skating elephant, that she wasn't having much fun in there. I began to believe that she was like some sort of beanfield slave, every now and then being goosed electronically to laugh. She was a video galley slave, one of the pod people, a member of some ghastly high-frequency chain gang. Cataphasia, but worse. Oh, how I wanted to save her; to drag her out of there and let her tormented soul bound free like a snow rabbit, to vanish into great white spaces where the words *Laverne and Shirley* had never trembled in the lambent mist.

Then I went to bed and didn't think about it again until 1978.

By September of 1978 I was working for Bill Tidy again. In years to come I would refer to that pox-ridden period as the Season I Stepped In a Pile of Tidy.

Each of us has one dark eminence in his or her life who somehow has the hoodoo sign on us. Persons so cosmically loathsome that we continually spend our time when in their company silently asking ourselves *What the hell, what the bloody hell, what the everlasting Technicolor hell am I doing sitting here with this ambulatory piece of offal? This is the worst person who ever got born, and someone ought to wash out his life with a bar of Fels-Naptha.*

But there you sit, and the next time you blink, there you sit again. It was probably the way Catherine the Great felt on her dates with Rasputin.

Bill Tidy had that hold over me.

In 1973 when I'd been just a struggling sitcom writer, getting his first breaks on *Misty Malone*, Tidy had been the story editor. An authoritarian Fascist with all the creative insight of a sump pump. But now, a mere five years later, things were a great deal different: I had created a series, which meant I was a struggling sitcom writer with my name on a parking slot at the studio; and Bill Tidy, direct lineal descendant of The Blob that tried to eat Steve McQueen, had swallowed up half the television industry. He was now the heavy-breathing half of Tidy-Spellberg Productions, in partnership with another ex-hairdresser named Harvey Spellberg, whom he'd met during a metaphysical retreat to Reno, Nevada. They'd become corporate soul-mates while praying over the crap tables and in just a few years had built upon their unerring sense of how much debasement the American television-viewing audience could sustain (a much higher gag-reflex level than even the experts had postulated, thereby paving the way for *Three's Company*), to emerge as "prime suppliers" of gibbering lunacy for the three networks.

Bill Tidy was to Art as Pekin, North Dakota is to wild nightlife.

But he was the fastest money in town when it came to marketing a

series idea to one of the networks, and my agent had sent over the prospectus for *Ain't It the Truth*, without my knowing it; and before I had a chance to scream, "Nay, nay, my liege! There are some things mere humans were never meant to know, Doctor Von Frankenstein!" the network had made a development deal with the Rupert Murdoch of mindlessness, and of a sudden I was—as they so aptly put it—in bed with Bill Tidy again.

This is the definition of ambivalence: to have struggled in the ditches for five years, to have created something that was guaranteed to get on the air, and to have that creation masterminded by a toad with the charm of a charnel house and the intellect of a head of lettuce. I thought seriously of moving to Pekin, North Dakota, where the words *coaxial cable* are as speaking-in-tongues to the simple, happy natives; where the blight of Jim Nabors has never manifested itself; where I could open a grain and feed store and never have to sit in the same room with Bill Tidy as he picked his nose and surreptitiously examined the findings.

But I was weak, and even if the series croaked before the season ran its course, I would have a credit that could lead to bigger things. So I pulled down the covers, plumped the pillows, straightened the rubber pishy-pad, and got into bed with Bill Tidy.

By September, I was a raving lunatic. I spent much of my time dreaming about biting the heads off chickens. The deranged wind of network babble and foaming Tidyism blew through the haunted cathedral of my brain. What little originality and invention I'd brought to the series concept—and at best what we're talking about here is primetime network situation comedy, not a PBS tour conducted by Alistair Cooke through the Library of Alexandria—was steadily and firmly leached out of the production by Bill Tidy. Any time a line or a situation with some charm or esthetic value dared to peek its head out of the *merde* of the scripts, Tidy as Grim Reaper would lurch onto the scene swinging the scythe of his demented bad taste, and intellectual decapitation instantly followed.

I developed a hiatic hernia, I couldn't hold down solid food and took to subsisting on strained mung from Gerber's inexhaustible and vomitous larder, I snapped at everyone, sex was a concept whose time had come and gone for me, and I saw my gentle little offering to the Gods of Comedy turned into something best suited for a life under mossy stones.

Had I known that on the evening of Thursday, September 14, 1978 *Ain't It the Truth* was to premiere opposite a new ABC show called *Mork & Mindy*, and that within three weeks a dervish named Robin Williams would be dining on Nielsen rating shares the way sharks devour entire continents, I might have been able to hold onto enough of my sanity to weather the Dark Ages. And I wouldn't have gotten involved with Wally Modisett, the phantom sweetener, and I wouldn't have spoken into the

black box, and I wouldn't have found the salvation for my dead Aunt Babe's soul.

But early in September Williams had not yet uttered his first *Nanoo-nanoo* (except on a spinoff segment of *Happy Days* and who the hell watched *that?*) and we had taped the first three segments of *Ain't It the Truth* before a live audience at the Burbank Studios, if you can call those who voluntarily go to tapings of sitcoms as "living," and late one night the specter of Bill Tidy appeared in the doorway of my office, his great horse face looming down at me like the demon that emerges from the *Night on Bald Mountain* section of Disney's *Fantasia*; and his sulphurous breath reached across the room and made all the little hairs in my nostrils curl up and try to pull themselves out so they could run away and hide in the back of my head somewhere; and the two reflective puddles of Vegemite he called eyes smoldered at me, and this is what he said. First he said:

"That fuckin' fag cheese-eater director's never gonna work again. He's gonna go two days over, mark my words. I'll see the putzola never works again."

Then he said:

"I bought another condo in Phoenix. Solid gold investment. Better than Picassos."

Then he said:

"I heard it at lunch today. A cunt is just a clam that's wearin' a fright-wig. Good, huh?"

Then he said:

"I want you to stay late tonight. I can't trust anyone else. Guy'll show up here about eight. He'll find you. Just stay put till he gets here. Never mind a name. He'll make himself known to you. Take him over to the mixing studio, run the first three shows for him. Nobody else gets in, *kapeesh, paisan?*"

I was having such a time keeping my gorge from becoming buoyant that I barely heard his directive. Bill Tidy gave new meaning to the words King of the Pig People. The only groups he had failed to insult in the space of thirteen seconds were blacks, Orientals, paraplegics, and Doukhobors, and if I didn't quickly agree to his demands, he'd no doubt round on them, as well. "Got it, Bill. Yessiree, you can count on me. Uh-huh, absolutely, right-on, dead-center, I hear ya talkin', I'm your boy, I loves workin' foah ya Massa' Tidy-suh, you can bank on me!"

He gave me a look. "You know, Angelo, you are gettin' stranger and stranger, like some kind of weird insect."

And he turned and he vanished, leaving me all alone there in the encroaching darkness, just tuning my antennae and rubbing my hind legs together.

I was slumped down on my spine, eyes closed, in the darkened office with just the desk lamp doing its best to rage against the dying of the light, when I heard someone whisper huskily, "Turn off the light."

I opened my eyes. The room was empty. I looked out the window behind my desk. It was night. I was three flights up in the production building. No one was there.

"The light. Turn off the light, can you hear what I'm telling you?"

I strained forward toward the open door and the dark hallway beyond. "You talking to me?" Nothing moved out there.

"The light. Slow; you're a very slow person."

Being Catholic, I respond like a Pavlovian dog to guilt. I turned out the light.

From the deeper darkness of the hallway I saw something shadowy detach itself and glide into my office. "Can I keep my eyes open," I said, "or would a blindfold serve to palliate this unseemly paranoia of yours?"

The shadowy form snorted disdainfully. "At these prices you can use words even bigger than that and I don't give a snap." I heard fingers snap. "You care to take me over to the mixing booth?"

I stood up. Then I sat down. "Don't wanna play." I folded my arms.

The shadowy figure got a petulant tone in his voice. "Okay, c'mon now. I've got three shows to do, and I haven't got all night. The world keeps turning. Let's go."

"Not in the cards, Lamont Cranston. I've been ordered around a lot these last few days; and since I don't know you from a stubborn stain, I'm digging in my heels. Remember the Alamo. Millions for defense, not one cent for tribute. The only thing we have to fear is fear itself. Forty-four forty or fight."

"I think that's fifty-four forty or fight," he said.

We thought about that for a while. Then after a long time I said, "Who the hell are you, and what is it you do that's so illicit and unspeakable that first of all Bill Tidy would hire you to do it, which puts you right on the same level as me, which is the level of graverobbers, dog catchers, and horse-dopers; and second, which is so furtive and vile that you have to do it in the dead of night, coming in here wearing garb fit only for a commando raid? Answer in the key of C#."

He chuckled. It was a nice chuckle. "You're okay, kid," he said. And he dropped into the chair on the other side of my desk where writers pitching ideas for stories sat; and he turned on the desk lamp.

"Wally Modisett," he said, extending a black-gloved hand. "Sound editor." I took the hand and we shook. "Free-lance," he said.

That didn't sound so ominous. "Why the Creeping Phantom routine?"

Then he said the word no one in Hollywood says. He looked intently

at all of my face, particularly around the mouth, where lies come from, and he said: "Sweetening."

If I'd had a silver crucifix, I'd have thrust it at him at arm's-length. *Be still my heart*, I thought.

There are many things of which one does not speak in the television industry. One does not repeat the name of the NBC executive who was making women writers give him blowjobs in his office in exchange for writing assignments, even though he's been pensioned off with a lucrative production deal at a major studio and the network paid for his psychiatric counseling for several years. One does not talk about the astonishing Digital Dance done by the royalty numbers in a major production company's ledgers, thereby fleecing several superstar participants out of their "points" in the profits, even though it made a large stink on the *World News Tonight* and everybody scampered around trying to settle out of court while *TV Guide* watched. One does not talk about how the studio frightened a buxom ingenue who had become an overnight national sensation into modifying her demands for triple salary in the second season her series was on the air, not even to hint knowingly of a kitchen chair with nails driven up through the seat from the underside.

And one never, never, no never ever talks about the phantom sweeteners.

This show was taped before a live studio audience!

If you've heard it once, you've heard it at least twice. And so when those audiences break up and fall on the floor and roll around and drum their heels and roar so hard they have to clutch their stomachs and tears of hilarity blind them and their noses swell from crying too much and they sound as if they're all genetically selected high-profile tickleables, you fall right in with them because that ain't canned laughter, it's a live audience, onaccounta *This show was taped before a live studio audience*.

While high in the fly loft of the elegant opera house, the Phantom Sweetener looks down and chuckles smugly.

They're legendary. For years there was only Charlie Douglas, a name never spoken. A laugh man. A sound technician. A sweetener. They say he still uses laughs kidnapped off radio shows from the Forties and Fifties. Golden laughs. Unduplicable originals. Special, rich laughs that blend and support and lift and build a resonance that punches your subliminal buttons. Laughs from *The Jack Benny Show*, from segments of *The Fred Allen Show* down in Allen's Alley, from *The Chase & Sanborn Hour* with Edgar Bergen and Charlie McCarthy (one of the shows on which Charlie mixed it up with W.C. Fields). The laughs that Ed Wynn got, that Goodman and Jane Ace got, that Fanny Brice got. Rich, teak-colored laughs from a time in this country when humor wasn't produced

by slugs like Bill Tidy. For a long time Charlie Douglas was all alone as the man who could make even dull thuds go over boffola.

But no one knew how good he was. Except the IRS, which took note of his underground success in the industry by raking in vast amounts of his hard-earned cash.

Using the big Spotmaster cartridges—carts that looked like eight-track cassettes, with thirty cuts per cart—twelve or fourteen per job—Charlie Douglas became a hired gun of guffaws, a highwayman of hee-haws, Zorro of zaniness; a troubleshooter working extended overtime in a specialized craft where he was a secret weapon with a never-spoken code-name.

Carrying with him from studio to studio the sounds of great happy moments stolen from radio signals long-since on their way to Proxima Centauri.

And for a long time Charlie Douglas had it all to himself, because it was a closely-guarded secret; not one of the open secrets perhaps unknown in Kankakee or Key West, like Merv Griffin or Ida Lupino or Roger Moore; but common knowledge at the Polo Lounge and Chasen's.

But times got fat and the industry grew and there was more work, and more money, than one Phantom Sweetener could handle.

So the mother of invention called forth more audio soldiers of fortune: Carroll Pratt and Craig Porter and Tom Kafka and two silent but sensational guys from Tokyo and techs at Glen Glenn Sound and Vidtronics. And you never mention their names or the shows they've sweetened, lest you get your buns run out of the industry. It's an open secret, closely-held by the community. The networks deny their existence, the production company executives would let you nail them hands and feet to their office doors before they'd cop to having their shows shot before a live studio audience sweetened. In the dead of night by the phantoms.

Of whom Wally Modisett is the most mysterious.

And here I sat, across from him. He wore a black turtleneck sweater, jeans, and gloves. And he placed on the desk the legendary black box. I looked at it. He chuckled.

"That's it," he said.

"I'll be damned," I said.

I felt as if I were in church.

In sound editing, the key is equalization. Bass, treble, they can isolate a single laugh, pull it off the track, make a match even twenty years later. They put them on "endless loops" and then lay the show over to a multi-track audio machine, and feed in one laugh on a separate track, meld it, blend it in, punch it up, put that special button-punch giggle right in there with the live studio audience track. They do it, they've always done it, and soon now they'll be able to do it with digital encoding.

And he sat right there in front of me with the legendary black box. Legendary, because Wally Modisett was an audio genius, an electronics Machiavelli who had built himself a secret system to do it all through that little black box that he took to the studios in the dead of night when everyone was gone, right into the booth at the mixing room, and he didn't need a multi-track.

If it weren't something to be denied to the grave, the *mensches* and moguls of the television industry would have Wally Modisett's head right up there on Mt. Rushmore in the empty space between Teddy Roosevelt and Abe Lincoln.

What took twenty-two tracks for a combined layering on a huge machine, Wally Modisett carried around in the palm of his hand. And looking at his long, sensitive face, with the dark circles under his eyes, I guess I saw a foreshadowing of great things to come. There was laughter in his eyes.

I sat there most of the night, running the segments of *Ain't It the Truth*. I sat down below in the screening room while the Phantom Sweetener locked himself up in the booth. *No one*, he made it clear, watched him work his magic.

And the segments played, with the live audience track, and he used his endless loops from his carts—labeled "Single Giggle 1" and "Single Giggle 2" and slightly larger "Single Giggle 3" and the dreaded "Titter/Chuckle" and the ever-popular "Rim Shot"—those loops of his own design, smaller than those made by Spotmaster, and he built and blended and sweetened the hell out of that laugh track till even I chuckled at moronic material Bill Tidy had bastardized to a level that only the Jukes and Kallikaks could have found uproarious.

And then, on the hundredth playback, after Modisett had added another increment of hilarity, I heard my dead Aunt Babe. I sat straight up in the plush screening room chair, and I slapped the switch on the console that fed into the booth, and I yelled, "Hey! That last one! That last laugh . . . what was that . . . ?"

He didn't answer for a moment. Then, tinnily, through the console intercom, he said, "I call it a wonky."

"Where'd it come from?"

Silence.

"C'mon, man, where'd you get that laugh?"

"Why do you want to know?"

I sat there for a second, then I said, "Listen, either you've got to come down here, or let me come up there. I've got to talk to you."

Silence. Then after a moment, "Is there a coffee machine around here somewhere?"

"Yeah, over near the theater."

"I'll be down in about fifteen minutes. We'll have a cup of coffee. Think you can hold out that long?"

"If you nail a duck's foot down, does he walk in circles?"

It took me almost an hour to convince him. Finally, he decided I was almost as bugfuck as he was, and the idea was so crazy it might be fun to try and work it out. I told him I was glad he'd decided to try it because if he hadn't I'd have followed him to his secret lair and found some way to blackmail him into it, and he said, "Yeah, I can see you'd do that. You're not a well person."

"Try working with Bill Tidy sometime," I said. "It's enough to turn Mother Teresa into a hooker."

"Give me some time," he said. "I'll get back to you."

I didn't hear from him for a year and a half. *Ain't It the Truth* had gone to the boneyard to join *The Chicago Teddy Bears* and *Angie* and *The Dumplings*. Nobody missed it, not even its creator. Bill Tidy had wielded his scythe with skill.

Then just after two A.M. on a summer night in Los Angeles, my phone rang, and I fumbled the receiver off the cradle and found my face somehow, and a voice said, "I've got it. Come." And he gave me an address; and I went.

The warehouse was large, but all his shit was jammed into one corner. Multi-tracks and oscilloscopes and VCRs and huge 3-mil thick Mylar foam speakers that looked like the rear seats of a 1933 Chevy. And right in the middle of the floor was a larger black box.

"You're kidding?" I said.

He was like a ten-year-old kid. "Would I shit you? I'm telling you, fellah, I've gone where no man has gone before. I has done did it! Jonas Salk and Marie Curie and Lee De Forest and all the rest of them have got to move over, slide aside, get to the back of the bus." And he leaped around, howling, "*I am the king!*"

When I was able to peel him off the catwalks that made a spiderweb tracery above us, he started making some sense. Not a *lot* of sense, because I didn't understand half of what he was saying, but enough sense for me to begin to believe that this peculiar obsession of mine might have some toe in the world of reality.

"The way they taped shows back in 1953, when your aunt went to that *Our Miss Brooks*, was they'd use a ¼" machine, reel-to-reel. They'd have directional mikes above the audience, to separate individual laughs. One track for the program, and another track for the audience. Then they'd

just pick up what they want, equalize, and sock it onto one track for later use. Sweetened as need be."

He went to a portable fridge and pulled out a Dr. Pepper and looked in my direction. I shook my head. I was too excited for junk food. He popped the can, took a swig and came back to me.

"The first thing I had to do was find the original tape, the master. Took me a long time. It was in storage with . . . well, you don't need to know that. It was in storage. I must have gone through a thousand old masters. But I found her. Then I had to pull her out. But not just the *sound* of her laugh. The actual laugh itself. The electronic impulses. I used an early model of this to do it." He waved a hand at the big black box.

"She'd started sounding weak to me, over the years," I said. "Slurred sometimes. Scratchy."

"Yeah, yeah, yeah." Impatient to get on with the great revelation. "That was because she was being diminished by fifth, sixth, twentieth generation re-recording. No, I got her at full strength, and I did what I call 'deconvolving.'"

"Which is?"

"Never mind."

"You going to say 'never mind' every time I ask what the hell you did to make it work?"

"As Groucho used to say to contestants, 'You bet your ass.'"

I shrugged. It was his fairy tale.

"Once I had her deconvolved, I put her on an endless loop. But not just *any* kind of normal standard endless loop. You want to know what kind of endless loop I put her on?"

I looked at him. "You going to tell me to piss off?"

"No. Go ahead and ask."

"All right already: I'm asking. What the hell kind of endless loop did you put her on?"

"A moebius loop."

He looked at me as if he'd just announced the birth of a two-headed calf. I didn't know what the hell he was talking about. That didn't stop me from whistling through my two front teeth, loud enough to cause echoes in the warehouse, and I said, "No shit!?"

He seemed pleased, and went on faster than before. "Now I feed her into the computer, digitally encode her so she never diminishes. Slick, right? Then I feed in a program that says harmonize and synthesize her, get a simulation mapping for the instrument that produced that sound; in other words, your aunt's throat and tongue and palate and teeth and larynx and alla that. Now comes the tricky part. I build a program that postulates an actual physical *situation*, a terrain, a *place* where that

voice exists. And I send the computer on a search to bring me back everything that comprises that place."

"Hold hold *hold* it, Lamont. Are you trying to tell me that you went in search of the Land of Oz, using that loop of Babe's voice?"

He nodded about a hundred and sixteen times.

"How'd you do *that*? I know: piss off. But that's some kind of weird metaphysical shit. It can't be done."

"Not by drones, fellah. But *I* can do it. I *did* it." He nodded at the black box.

"The tv sitcom land where my dead Aunt Babe is trapped, it's in there, in that cube?"

"Ah calls it a *similarity matrix*," he said, with an accent that could get him killed in SouthCentral L.A.

"You can call it rosewater if you like, Modisett, but it sounds like the foothills of Bandini Mountain to me."

His grin was the mutant offspring of a sneer and a smirk. I'd seen that kind of look only once, on the face of a failed academic at a collegiate cocktail party. Later that evening the guy used the smirk ploy once too often and a little tweety-bird of an English prof gave him high cause to go see a periodontal reconstructionist.

"I can reconstruct her like a clone, right in the machine," he said.

"How do you know? Tried it yet?"

"It's your aunt, not mine," he said. "I told you I'd get back to you. Now I'm back to you, and I'm ready to run the showboat out to the middle of the river."

So he turned on a lot of things on the big board he had, and he moved a lot of slide-switches up the gain slots, and he did this, and he did that, and a musical hum came from the Quad speakers, and he looked over his shoulder at me, across the tangle of wires and cables that disappeared into the black box, and he said, "Wake her up."

I said, "What?"

He said, "Wake her. She's been an electronic code for almost twenty-five years. She's been asleep. She's an amputated frog leg. Send the current through her."

"How?"

"Call her. She'll recognize your voice."

"How? It's been a long time. I don't sound like the kid I was when she died."

"Trust me," he said. "Call her."

I felt like a goddam fool. "Where do I speak?"

"Just speak, asshole. She'll hear you."

So I stood there in the middle of that warehouse and I said, "Aunt Babe?" There was nothing.

"A little louder. Gentle, but louder. Don't startle her."

"You're outta your . . ." His look silenced me. I took a deep breath and said, a little louder, "Hey, Aunt Babe? You in there? It's me, Angelo."

I heard something. At first it sounded like a mouse running toward me across a long blackboard, a blackboard maybe a hundred miles long. Then there was something like the wind you hear in thick woods in the autumn. Then the sound of somebody unwrapping Christmas presents. Then the sound of water, like surf, pouring into a cave at the base of a cliff, and then draining out again. Then the sound of a baby crying and the sound suddenly getting very deep as if it were a three hundred pound killer baby that wanted to be fed parts off a freshly-killed dinosaur. This kind of torrential idiocy went on for a while, and then, abruptly, out of nowhere, I heard my Aunt Babe clearing her throat, as if she were getting up in the morning. That phlegmy throat-clearing that sounds like quarts of yogurt being shoveled out of a sink.

"Angelo . . . ?"

I crossed myself about eleven times, ran off a few fast Hail Mary's and Our Father's, swallowed hard and said, "Yeah, Aunt Babe, it's me. How are you?"

"Let me, for a moment here, let me get my bearings." It took more than a moment. She was silent for a few minutes, though she did once say, "I'll be right with you, *mio caro*."

And finally, I heard her say, "I am really fit to be tied. Do you have any idea what they have put me through? Do you have even the *faintest* idea how many times they've made me watch *The Partridge Family*? Do you have any *idea* how much I hate that kind of music? Never Cole Porter, never Sammy Cahn, not even a little Gus Edwards; I'd settle for Sigmund Romberg after those squalling children. *Caro nipote, quanto mi sei mancato!* Angelo . . . *bello bello*. I want you to tell me everything that's happened, because as soon as I get a chance, I'm going to make a stink you're not going to believe!"

It *was* Babe. My dearest Aunt Babe. I hadn't heard that wonderful mixture of pungent English and lilting Italian with its show biz Yiddish resonances in almost thirty years. I hadn't *spoken* any Italian in nearly twenty years. But I heard myself saying to the empty air, "*Come te la sei passata?*" How've you been?

"*Ti voglio bene—bambino caro*. I feel just fine. A bit fuzzy, I've been asleep a while but *come sta la famiglia?* *Anche quelli che non posso sopportare.*"

So I told her all about the family, even the ones she couldn't stand, like Uncle Nuncio with breath like a goat, and Carmine's wife, Giuletta, who'd always called Babe a floozy. And after a while she had me try to

explain what had happened to her, and I did the best I could, to which she responded, "*Non mi sento come un fantasma.*"

So I told her she didn't feel like a ghost because she *wasn't*, strictly speaking, a ghost. More like a random hoot in the empty night. Well, that didn't go over too terrific, because in an instant she'd grasped the truth that if she wasn't going where it is that dead people go, she'd never meet up with my Uncle Morrie again; and that made her very sad. "*Oh, dio!*" and she started crying.

So I tried to jolly her out of it by talking about all the history that had transpired since 1955, but it turned out she knew most of it anyhow. After all, hadn't she been stuck there, inside the biggest blabbermouth the world had ever known? Even though she'd been in something like an alpha state of almost-sleep, her essence had been *saturated* with news and special reports, docudramas and public service announcements, talk shows and panel discussions, network extra alerts and hour-by-hour live coverage of fast-breaking events.

Eventually I got around to explaining how I'd gotten in touch with her, about Modisett and the big black box, about how the Phantom Sweetener had deconvolved her, and about Bill Tidy.

She was not unfamiliar with the name.

After all, hadn't she been stuck there, inside the all-talking, all-singing, all-dancing electromagnetic pimp for Tidy's endless supply of brain-damaged, insipid persiflage?

I painted Babe a loving word-portrait of my employer and our unholy liaison. She said: "*Stronzo! Figlio di una mignotta! Mascalzone!*" She also called him *bischero*, by which I'm sure she meant the word in its meaning of goof, or simpleton, rather than literally: "man with erection."

Modisett, who spoke no Italian, stared wildly at me, seeming to bask in the unalloyed joy of having tapped a line into some Elsewhere. Yet even he could tell from the tone of revulsion in Babe's disembodied voice that she had suffered long under the exquisite tortures of swimming in a sea of Tidy product.

What Tidy had been doing to me seemed to infuriate her. She was still my loving Aunt Babe.

So I spent all that night, and the next day, and the next night—while Modisett mostly slept and emptied Dr. Pepper down his neck—chatting at leisure with my dead Aunt Babe.

You'll never know how angry someone can get from prolonged exposure to Gary Coleman.

The Phantom Sweetener can't explain what followed. He says it defies the rigors of Boolean logic, whatever the hell that means. He says it transcends the parameters of Maxwell's Equation, which ought to put

Maxwell in a bit of a snit. He says (and with more than a touch of the gibber in his voice) it deflowers, rapes, & pillages, breaks & enters Min-kowski's Covariant Tensor. He says it is enough to start Philo T. Farnsworth spinning so hard in his grave that he would carom off Vladimir K. Zworykin in his. He says it would get Marvin Minsky up at M.I.T. speaking in tongues. He says—and this one *really* turned me around and opened my eyes—he says it (wait for it), “Distorts Riemannian geometry.” To which I said, “You have *got* to be shitting me! Not Riemannian ge-fuckingometry!?”

This is absolute babble to me, but it's got Modisett down on all fours, foaming at the mouth and sucking at the electrical outlets.

Apparently, Babe has found pathways in the microwave comm-system. The Phantom Sweetener says it might have happened because of what he calls “print-through,” that phenomenon that occurs on audio tape when one layer magnetizes the next layer, so you hear an echo of the word or sound that is next to be spoken. He says if the tape is wound “heads out” and is stored that way, then the signal will jump. The signal that is my dead Aunt Babe has jumped. And keeps jumping. She's loose in the comm-system and she ain't asking where's the beef: *she knows!* And Modisett says the reason they can't catch her and wipe her is that old tape *always* bleeds through. Which is why, when Bill Tidy's big multimillion dollar sitcom aired last year, instead of the audience roaring with laughter, there was the voice of this woman shouting above the din, “That's stupid! Worse than stupid! That's *bore-ing!* Ka-ka! C'mon folks, let's have a good old-fashioned Bronx cheer for crapola like this! Let's show 'em what we *really* think of this flopola!”

And then, instead of augmented laughter, instead of yoks, came a raspberry that could have floated the Titanic off the bottom.

Well, they pulled the tape, and they tried to find her, but she was gone, skipping off across the similarity matrix like Bambi, only to turn up the next night on another Tidy-Spellberg abomination.

Well, there was no way to stop it, and the networks got very leery of Tidy and Company, because they couldn't even use the millions of billions of dollars worth of shitty rerun shows they'd paid billions and millions for syndication rights to, and they sued the hell out of Bill Tidy, who went crazy as a soup sandwich not too long ago, and I'm told he's trying to sell ocean view lots in some place like Pekin, North Dakota, and living under the name Silas Marner or somesuch because half the civilized world is trying to find him to sue his ass off.

And I might have a moment of compassion for the creep, but I haven't the time. I have three hit shows running at the moment, one each on ABC, NBC, and CBS.

They are big hits because somehow, in a way that no one seems able

to figure out, there are all these little subliminal buttons being pushed by my shows, and they just soar to the top of the Nielsen ratings.

And I said to Aunt Babe, "Listen, don't you want to go to Heaven, or wherever it is? I mean, don't you want out of that limbo existence?"

And with love, because she wanted to protect her *bambino caro*, because she wanted to make up for the fact that I didn't have her wonderful bosom to fall asleep on anymore, she said, "Get out of here, Angelo, my darling? What . . . and leave show business?" ●

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LINEs FOUND WITH THE REMAINS OF THE EARTHSHIP ASTAR IN THE YEAR 3020 (OLD EARTH), 1225 (LUNAR)

Now, some nine moons wasted have I
Upon this ice-clad landscape
Of unyielding shapes, devoid of any
Spark of life save my own small flame.
I was Hope, encased in steel,
A fragile shell of human skill,
Soaring to my birth that
Has only proved my death.

I lament not the effort
No
My sorrow is spent for
That effort wasted, that hope dimmed,
That message now scattered on this airless plain.

I will leave these broken lines for those who follow;
Give back in part what once was lost,
To say:
MAN was here.
That in itself is hope, is effort, is dream divine
Realized amidst these ruins.

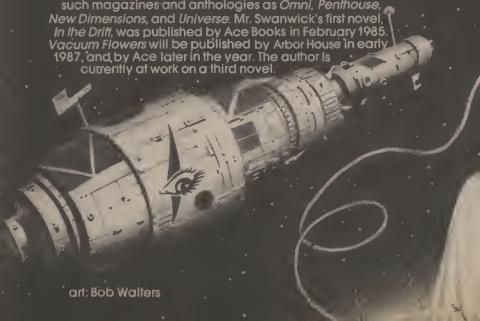
—Anne Devereaux Jordan

Part One of Three

VACUUM FLOWERS

by Michael Swanwick

Michael Swanwick's most recent work to appear in *Asim*, was the controversial nonfiction article "A User's Guide to the Post Moderns." His short fiction has appeared in such magazines and anthologies as *Omni*, *Penthouse*, *New Dimensions*, and *Universe*. Mr. Swanwick's first novel, *In the Drift*, was published by Ace Books in February 1985. *Vacuum Flowers* will be published by Arbor House in early 1987, and by Ace later in the year. The author is currently at work on a third novel.



art: Bob Walters



She didn't know she had died.

She had, in fact, died twice—by accident the first time, but suicide later. Now the corporation that owned her had decided she should die yet again, in order to fuel a million throwaway lives over the next few months.

But Rebel Elizabeth Mudlark knew none of this. She knew only that something was wrong and that nobody would talk to her about it.

"Why am I here?" she asked.

The doctor's face loomed over her. It was thin and covered by a demon mask of red and green wetware paint that she could *almost* read. It had that horrible programmed smile that was supposed to be reassuring, the corners of the mouth pushing his cheeks into little round balls. He directed that death's head rictus at her. "Oh, I wouldn't worry about that," he said.

A line of nuns floated by overhead, their breasts bobbing innocently, wimples starched and white. They were riding the magnetic line at the axis of the city cannister, as graceful as small ships. It was a common enough sight, even a homey one. But then Rebel's perception did a flipflop and the nuns were unspeakably alien, floating upside down against the vast window walls that were cold with endless stretches of bright glittery stars embedded in night. She must have seen the like a thousand times before, but now, without warning, her mind shrieked *strange strange strange* and she couldn't make heads or tails of what she was seeing. "I can't remember things," Rebel said. "Sometimes I'm not even sure who I am."

"Well, that's perfectly normal," the doctor said, "under the circumstances." He disappeared behind her head. "Nurse, would you take a look at this?"

Someone she could not see joined him. They conferred softly. Gritting her teeth, Rebel said, "I suppose it happens to you all the time."

They ignored her. The scent of roses from the divider hedges was heavy and cloying, thick enough to choke on. Traffic continued flowing along the axis.

If she could have moved so much as an arm, Rebel would've waited for the doctor to lean too close, and then tried to choke the truth out of him. But she was immobilized, unable even to move her head. She could only stare up at the people floating by, and the stars wheeling monotonously past. The habitat strips to either side of overhead were built up with platforms and false hills, rising like islands from a starry sea. By their shores occasional groups of picnickers ventured onto the window floor,

black specks visible only when they occulted stars or other cannister cities. The strange planet went by again.

"We'll want to wait another day before surgery," the doctor said finally. "But her persona's stabilized nicely. If there aren't any major changes in her condition, we can cut tomorrow." He moved toward the door.

"Wait a minute!" Rebel cried. The doctor stopped, turned to look at her. Dead eyes surrounded by paint, under a brush of red hair. "Have I given permission for this operation?"

Again he turned that infuriatingly reassuring smile on her. "Oh, I don't think that's important," he said, "do you?"

Before she could answer, he was gone.

As the nurse adjusted the adhesion disks on Rebel's brow and behind her ears, she briefly leaned into Rebel's view. It was a nun, a heavy woman with two chins and eyes that burned with visions of God. Earlier, when Rebel was still groggy and half-aware, she had introduced herself as Sister Mary Radha. Now Rebel could see that the nun had been tinkering with her own wetware—her mystic functions were cranked up so high she could barely function.

Rebel looked away, to hide her thoughts. "Please turn on," she murmured. The video flat by the foot of her cot came on, open to the encyclopedia entry for medical codes. Hastily, she switched it over to something innocuous. Simple-structure atmospheric methane ecologies. She pretended to be absorbed in the text.

Then, as the nurse was leaving, Rebel casually said, "Sister? The flat's at a bad angle for me. Could you tilt it forward a little?" The nun complied. "Yeah, like that. No, a bit . . . perfect." Rebel smiled warmly, and for a moment Sister Mary Radha basked in this manifestation of universal love. Then she floated out.

"Fucking god-head," Rebel muttered. Then, to the flat, "Thank you."

It turned itself off.

The flat's surface was smooth and polished. Turned off, it darkly reflected the foot of Rebel's cot, and the medical code chart hanging there.

Rebel quickly decoded the reversed symbols. There were two simplified persona wheels, one marked Original, and the other Current. They looked nothing at all like each other. Another symbol for wetsurgical prep, and three more that, boiled down, meant she had no special medical needs. And a single line of print below that, where her name should have been. Rebel read it through twice, letter by letter, to make sure there was no mistake.

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Anger rose up in Rebel like a savage white animal. She clenched her teeth and drew back her lips and did not try to fight it. She *wanted* this

anger. It was her ally, her only friend. It raged through her paralyzed body, a hot storm of fangs and claws and violence.

Then the fury overran her sense of self and swept her under. Drowning, she was carried down into the dark chaos of helplessness below. Into the murky despair that had no name or purpose, where she lost her face, her body, her being. She was a demon, blindly watching people stream through the air and stars slide to the side, and hating them all. Wanting to smash them all together in her hands, cities and stars and people alike, and smear them into a pulpy little ball, as she laughed, with black tears running down from her eyes . . .

She came out of her fugue feeling weak and depressed. "Please tell me the time," she said, and the flat obeyed. Four hours had passed.

A woman stepped into the niche, a skinny type in greenface with a leather tool harness, some kind of low-level biotech. Humming to herself, she began to trim the walls. She worked methodically, obsessively, pausing every now and then to train a rose back into place.

"Hey, sport," Rebel said. "Do me a favor." Her loginess evaporated as the adrenalin began to flow. She flashed a smile.

"Hmm? Ah! Er—what is it?" With a visible effort, the woman pulled herself away from her work.

"I'm getting out in a couple of hours, and nobody's arranged for any clothing for me. Could you drop by wherever-it-is on the way out, and get them to send something over?"

The woman blinked. "Oh. Uh—sure, I suppose. Isn't your nurse supposed to take care of that?"

Rebel rolled her eyes. "She sees universal purpose in the stars, and the meaning of existence in the growth of a rose. The little stuff she's not so good on. Know what I mean?" Anyone working in a hospital with a nursing order would find that easy to believe.

"Well. Yeah, why not?" The woman returned to her work, visibly relieved the conversation was over. Twigs and leaves snowed down from her fingers. By the time she left, Rebel was sure the woman had forgotten her promise.

But an hour later an orderly stepped in and wordlessly deposited a cloak on the table by her bed. "Sonofabitch," Rebel said softly. She was actually going to break out of this place!

Rebel napped. When she awoke, she spent an excruciating hour staring at the people floating through the eternal twilight before Sister Mary Radha returned. The nun's belly overhung her cincture, and she was as heavily mystic-wired as ever.

"Sister," Rebel said, "the leads in my adhesion disks are out of ad-

justment. Would you take a look at them?" Then, when the woman's hands were deep in the wires, she said, "You know, there's a verse by one of your prophets that's been running through my head. But I've forgotten part. It starts: 'Tormented by thirst of the spirit, I was dragging myself through a gloomy forest when a six-winged seraph appeared to me at a crossroads.' Are you familiar with that? Then it goes—" She closed her eyes, as if trying to bring up the words. " 'He touched my eyes with fingers light as a dream, and my eyes opened wide as those of a frightened she eagle. He touched my ears . . . ' and I forget the rest."

Sister Mary Radha's hands stopped moving. For one still, extended moment she said nothing. Then the nun stared up into the infinite depths of night, and murmured, "Saint Pushkin." Her voice rose. " 'He touched my ears, and roaring and noise filled them, and I heard the trembling of the angels, and the movement of creatures beneath the seas, and the growing of the grass in the valleys! And he laid hold of my lips, and tore out my sinful tongue—" She arched her back and shivered in religious ecstasy. Her hands jerked spasmodically. One of the adhesion disks was yanked askew, and Rebel's head slammed to the side. But she was still paralyzed.

"Sister," Rebel said quietly. "Sister?"

"Mmmm?" the nun replied dreamily.

"The doctor wanted you to remove my paralysis now. Do you remember that? He asked me to remind you." Rebel held her breath. This was the moment when she either won free or lost it all. Everything depended on how long it took Sister Mary Radha to reconnect with reality.

"Oh," the nun said. She fumbled with a switch, haltingly changed two settings. With somnambulant slowness, she lifted off the disks. Then she shook her head, smiling vaguely, and wandered out.

Rebel let out her breath. She could move! But for a long minute she did not, choosing instead to stare up, unseeing. The memory of her reflection in the video flat, foreshortened and distorted though it had been, pinned her to the cot with dread. At last she gathered up courage and gingerly, haltingly, held up an arm before her eyes. Slowly she rotated it.

The arm was whole and its muscles shifted smoothly. The skin was a soft, Italian brown, unscarred, lightly fuzzed with fine dark hair. The fingers were short, the nails a pearly pink. Horrified, Rebel sat bolt upright, and stared down her body.

Her breasts were round and full. Her thighs were a trifle heavy, but still muscular. The hospital had left her *cache-sexe* on for modesty's sake, but above it a thin line of black hairs marched up her belly like ants. Her legs were short, functional, strong. It was a good, healthy body.

But it was not *her* body. Rebel Elizabeth Mudlark's body was long and

lean and knobby at the elbows and knees. Her skin was white as porcelain and her hair was mousy blonde. Her hands and feet were long and slender, with an artist's fingers, a concert pianist's toes. Almost the exact opposite of the body she had now.

I shall go mad, Rebel thought. I will scream.

But she did neither. She stood and examined her paint in the obsidian surface of the flat. Ignoring the strange round face with button nose and dark eyes—eyes that flashed animal fear at her. A line of red paint ran from ear to ear, like a mask, with spiky wing lines flying up the brows. "Please turn on," she said, and looked it up under wetware codes. Logically enough, it identified her as Hospital Patient, Wetsurgery Prep.

The paint smeared. It took only a second to change the markings to Outpatient, Wetsurgery Postop. Two small antennae now reached down from the eyes, a second pair of wings sprouted on the forehead. She wrapped the cloak about her, hood up, and stepped out of her niche, onto a flagstone walk.

The walk ran between high rosehedges, angled into another. She was swept up in a flow of medical personnel in gowns that matched their facepaint masks—surgical greens, diagnostics blues, wetware reds—and a sprinkling of civilians in their cloaks. They strode along crisply, blankly, as self-absorbed as robots. Rebel moved invisibly among them, gliding along on tiptoe since it was a gravity-light area.

She moved confidently at first, cloak streaming in her wake. Then the walk branched, and branched again, and she was hopelessly lost in the rose maze, among the hundreds of niches where patients were packed tight as larvae in a hive. Without warning, she felt naked and exposed, and she couldn't remember how to walk. All those complex motions. In a panic, she pulled her cloak about her and stumbled.

The zombies swirled by, stepping deftly aside as she fought for balance. Cold faces glanced quickly at her, then away.

Just as she went sprawling, an arm reached out and snagged her elbow, and she was hauled gracelessly to her feet. Turning, she found herself looking into a thin, vulpine face slashed by a single orange wetware line. The stranger smiled, narrow jaw, sharp little teeth. He had a painful grip on her arm, just above the elbow. "This way," he said.

"That's okay, sport," Rebel said quickly. "I just lost my footing. Point me the right way out, and I'd be grateful."

"Oh bullshit," the man said. "They'd've caught you already if anybody knew you were missing yet." Rebel yanked her arm free, and found that her new, unfamiliar body was trembling with adrenalin reaction. The man smiled condescendingly. "Listen, I know somebody who can help you out of this mess. Do you want to meet her or not?"

* * *

They were on the spine of their habitat island, where the giant druid oaks grew. One spread its limbs over the commercial maze of shops and taverns bordering the hospital. Its trunk reached halfway to the axis. Looking up as they strolled, Rebel saw stars blinking in its upper reaches, appearing and disappearing in the gaps between leaves. "Hell of a stunt, escaping from full therapeutic paralysis," the man said. "I'd love to know how you did it." Then, when she did not respond, "Hey. My name's Jerzy Heisen."

In among the branches, leaves descended slowly, barely moving through the suspended dust, as if the air had thickened to hold them up. In the soft light, the dust and leaves shared a stillness that was actually slow, tireless motion, an endless eddying as ponderous and inevitable as the rotation of spiral galaxies. "Is that so?" Rebel wished she could climb up the tree, in among the floating twigs and detritus, so like the vast tidal fronts of home. "I take it from your knowing hints that I needn't bother introducing myself."

"Oh, I know all about you." They passed between displays of body jewelry: silverplated armbands gleaming softly under blue spots, some sparkling with Lunar diamonds, impact emeralds, even Columbian tourmaline. "You're a persona bum, currently suffering from a major personality erasure—self-induced, by the way—and held together by a prototypical identity overlay that is, properly speaking, the property of the Deutsche Nakasone Gesellschaft. Your name is Eucrasia Walsh."

"No, it's—" She stopped, bewildered. The name *did* sound familiar, in a crazy kind of way, as if Heisen had put a name to all that was ugly within her, to all the self-pitying and wounded hatred she sank into when her mood turned dark. The stale, dusty smell of defeat and weary guilt rose up within her, and she ducked her head. Heisen took her elbow, and urged her forward.

"Confused, eh? Well, that's perfectly normal," he said, "under the circumstances."

She looked directly at him then, and something about his face, the small pinched lines of it, the long narrow nose, that brush of red hair . . . she knew that face. It took only a small act of imagination to see it covered with a demon mask of red and green lines. "You're my doctor!"

"Your wetsurgeon, yeah." The walk bridged a pond thick with water lilies. Pierrots waited on tables by the water's edge. "Not to worry, though—I'm off-program. I wouldn't turn my worst enemy over to those bastards at Deutsche Nakasone on my own time. Not that I have any choice when I'm programmed up . . ." The crowd thickened and slowed and came to a halt. "Here. We go downtown now."

The elevator bank was set by the druid tree's trunk, its vacuum sleeve

tunneling right through the root network. The cars were dirty and harshly lit and a whiff of urine and stale body sweat emanated from them. As the crowd swept forward, Rebel stared up wistfully, flashing on a quick fantasy: She would fight her way free of the crush, and scramble up the tree trunk, nimble as a squirrel, moving faster and faster as she swarmed higher and the gravity grew less, surging from limb to limb. Until at the very top she would pull knees to chest, brace toes against bark, and *leap* . . . soaring high into the air, body taut and outstretched, her flight slowing gradually, until at the last possible instant she'd touch axis and be snagged by the magnetic line, to be hauled far and away from here in the time it took to draw a breath.

(But she didn't have the armbands or leg rings for the magnetic field to grab. She would plummet like a stone, with excruciating slowness at first, then faster, a wingless Icarus, curving down to smash bloody dead against the city walks. It was a stupid fantasy.)

"Deutsche Nakasone is going to come looking for you. You know that?" They stepped into a car along with a hundred others. The doors sighed shut and the floor dropped. "They want a clean recording of that personality of yours. And then they want to revert you to Eucrasia Walsh. Out of the goodness of their corporate heart, you ask? Shit. They're just worried about retaining copyright." Heisen's face was so close to hers that their hoods kissed. His breath was sour as he murmured in her ear. "They don't care that to you—the present you, the one you think you are—it'll be just the same as dying."

Some of the elevator stayed behind to let off passengers; the rest continued downward. A black-and-white painted rude boy with a metal star hung about his neck cruised Rebel, hooking a fist on his hip and throwing back his cloak to reveal a body-length strip of flesh. She looked away, wrapping her cloak tightly about her, and he laughed. "But why? Why are they doing this to me?"

Heisen sighed. "It's a simple enough story," he said, "if an ugly one. Do you remember being Eucrasia? Working as a persona bum?"

The memory was there, but it was painful and Rebel flinched away from it. It keyed into the suicidal madness she had fallen into earlier and she wanted to keep her distance from that. Though like a tongue returning again and again to worry at an aching tooth, her thoughts had a will of their own. "My memories are all in a jumble."

Another slice of elevator stayed behind and another. They stepped back. Heisen glanced around at the blank faces. "Well, tell you what, let's not go into that here. Somebody might hear. I'll give you the story at Snow's."

The elevator opened. Hot, steamy air breathed into Rebel's face. This low, the gravity was over Greenwich normal, and she felt clumsy and

heavy-footed. They were jostled forward into a vasty cavern of interlocking kelp bars and surgical parlors, gambling lofts and blade bazaars. A shifting holo banner struck her eye, and she winced. Three strains of music clashed; the subimbeds made her feel anxious and restless. Sweat sheened up on her body. I've been here before, she thought. No, I haven't.

"Down Bakuninstrasse," Heisen said. Away from the uptown elevators the shops thinned and were broken by ebony stretches of building foundation and habitat supports. Light flared as they passed a wetware mall, and Heisen stopped and pointed within. Rebel stared: Customers edged down narrow aisles, passing slow hands over the endless racks. Now and then somebody would lift a wafer and slide into one of the programming booths that lined the rear wall. Advertising holos flashed overhead: Suzy Vacuum said one. She looked to be some kind of Amazon. The most beautiful boy Rebel had ever seen floated over the single word Angelus. And then she spotted the Rebel Elizabeth Mudlark banner. Against a starry backdrop was a woman who was not her, doing something she would never do. Rebel stared at it, horrified.

"Notice the little comets in the background? You treehangers are very fashionable this season."

Rebel turned her stunned face toward Heisen. He shrugged.

"Prepublicity. They've got a lot of money tied up in you. I wanted you to see what an expensive little piece of developmental wetware you are. Come on."

Down a slideway, and into an access corridor with long stretches of black stressed slag. On the lower reaches slogans were crudely perma-sprayed in nightglo colors, one over the other, in a tangled and almost incoherent snarl. STAY YOURSELF GOD HATES was overrun by FREEMINDSFREEMINDSFREEMINDS which raged over BURN BRIGHT BRAIN before smashing up against SHAPESHIFTERSFACE DANCERS WEREWOLFVAMPIRES GOTO HELL. Someone had made a serious effort to erase a wheel logo with the words EARTH FRIEND about it. Beneath the graffiti a workman sat on a crate facing the wall. He had removed an access hatch and was cyborged into a tangle of color-coded wires.

Around a corner they passed a sling city. The burn cases stumbled down, looking for handouts. They babbled in endless monotones, their minds rotted out with God, sex, information, their reflexes shattered, their faces vacant-eyed and twitching. Heisen hissed and stepped up his pace. "Scum!" he gasped once they were safely past. "They ought to be . . ." They turned down a yet smaller run where garbage was mulched thin against the street and starting to ferment. The stench of rotting squid and old grease hung in the air, and the soles of Rebel's feet were going black.

Rebel glanced at Heisen and was shocked to see the man was trembling. Sweat poured down a face gone fishbelly white. "God damn, sport," she said. "What's wrong with you?"

"It's just the wetware." Heisen waved a hand at his face. "I keep the imaginative processes cranked way up, so I'll be fast to pick up on the main chance, right? Makes me a touch . . . paranoid, though." They stepped down a slanting gallery where most of the overheads had been smashed or stolen. Exhaust fans grumbled in shadow. Tangles of black cable drooped from the ceiling; they had to duck under the lower loops. "God damn her," Heisen fretted. "She doesn't have to have her office down here, she just wants all that space. I wish—" They rounded a final corner and he pointed to a door grey with urban grime. "Here."

Over the doorway hung a flickering neon switchblade, a piece of antique technology that must have cost a fortune to recreate. It buzzed and crackled, tinging the shadows red. The knife's blade blinked off and on, as if snapping in and out of the handle. On the center of the door was taped a small white rectangle, a business card:

snow
the cutting edge
ostend kropotkinkorridor bei berk mangallerie
neues-hoch-kamden, E.K.

"Snow?" Heisen said uncertainly.

The door opened, and they stepped within.

Whatever Rebel might have been expecting, it was not this: a room so large and empty she could not guess its size. Eggshell-textured walls, white and featureless. No furniture. The only item in all that space was a small prayer rug in its center. A solitary figure knelt there, hood down, shaven head bowed. The room was chilled to an ambient that was, after a moment's relief, as oppressive as the heat outside.

They walked forward. This was the ultimate form of ostentation among technology freaks—to have a system so complete and sophisticated that nothing showed; no machines, no wires, no controls. The room would be laced with an invisible tracery of trigger-beams, directional mikes and subvocal pickups. There was power here, for one who knew its geography.

The woman raised her head, fixed Rebel with cold snakelike eyes. Her skull was white as marble, and her face was painted in a hexangular pattern suggestive of starbursts and ice crystals. "What have you stolen for me this time, Jerzy?"

The color was back in Heisen's face. He showed teeth again, and flamboyantly threw back his cloak to allow himself a sweeping, mocking bow.

"May I present," he said, "the only clean copy in existence of next month's lead release from Deutsche Nakasone."

The woman did not move. "How did this happen?"

"What a pleasure it is to see you, Jerzy, won't you have a chair?" The little man grinned cockily. "Isn't that what you meant to say, Snow? Or are we expected to sit on the floor?"

Snow moved her head slightly, the sort of movement a lizard might make on a cold morning after prolonged stasis. "Behind you." Rebel turned and almost stumbled into a Queen Anne chair. Its twin rested neatly beside it. Reflexively she stepped back. Heisen, too, looked unnerved. However the chairs had been sleight-of-handed into existence, it was as pure and uncluttered an effect as any medieval miracle.

They sat, and there was an odd glint in Snow's eyes as they faced her again. Was it amusement, Rebel wondered? If so, it was buried deep. Heisen cleared his throat and said, "This is Rebel Elizabeth Mudlark. Two days ago she was a persona bum, name of Eucrasia Walsh. Eucrasia was doing prelim on a string of optioned wetsets when she burned on the Mudlark wafer and popped her base. Wound up in Our Lady of Roses, and—"

"Hold it right there, Chucko!" Rebel said angrily. "Reel it back and give it to me without the gobbledegook."

Heisen glanced at Snow and she nodded slightly. He began again, this time directing his speech at Rebel. "Deutsche Nakasone reviews a lot of wetware every day. Most of it is never used, but it all has to be evaluated. They hire persona bums to do the first screening. Not much to it. They wire you up, suppress your base personality—that's Eucrasia—program in a new persona, test it, deprogram it, then program you back to your base self. And start all over again. Sound familiar?"

"I . . . think I remember now," Rebel said. Then, urgently, "But it doesn't *feel* like anything I've done. It's like it all happened to somebody else."

"I'm coming to that," Heisen said. "The thing is that persona bums are all notoriously unstable. They're all suicidally unhappy types—that's how they end up with that kind of job, you see? They're looking to be Mister Right. But the joke is that they have such miserable experience structures they're never happy as anyone. Experience always dominates, as we say." He paused a beat and looked triumphantly at Snow. "Only this time it didn't."

Snow said nothing. After an uncomfortable pause, Heisen said, "Yeah. We've got the exception that disproves the rule. Our Eucrasia powered on, tried the persona, and—she liked it. She liked it so much that she poured a glass of water into the programmer and shorted it out. Thus

destroying not only the safe-copy of her own persona, but also the only copy in existence of the Mudlark program."

Again, that small lizard-movement. "Then—" Snow said. "Yes. Yes, I see. Interesting." With the small, electric thrill of remembering something she couldn't possibly know, Rebel realized that Snow was accessing her system, that a tightly-aimed sonic mike or subcortical implant was feeding her data. "How did you manage to lift her?" Snow asked.

Heisen shrugged. "Blind luck. She broke herself out, and I happened by." He told what he knew of her escape.

"Now that *is* interesting." The woman stood. She was tall and impossibly, ethereally thin. A wraith in white, she kept her cloak clutched tight. Two long, fleshless fingers ghosted out to touch Rebel's forehead. They were hard and dry as parchment, and Rebel shivered at their touch. "What kind of mind are we dealing with here?" Snow fell silent.

"Take a look at her specs." Heisen yanked a briefcase from a cloak pocket and punched up a holographic branching-limb wetware diagram. It hung in the air, a convoluted green sphere, looking for all the world like a tumbleweed. Or like a faraway globular tree . . . it looked exactly like Rebel's home dyson world, and the image hit her hard. "Okay, this is a crude representation," Heisen said eagerly. "But look—see where the n-branch trines? You've got a very strong—"

The green sphere burned in the air like a vision of the grail, and Rebel flashed to that light-filled instant when her persona had flooded her skull, and she had picked up a glass and upended it over the programmer. The water writhed in the air, sparkling, and the supervising wettech twisted around in horror, mouth falling open, panic in her eyes as Rebel threw back her head, feeling the rich, full laughter form in her throat. It felt good to be alive, to sense the thoughts warming the brain like sunshine, and to know what she had to do. But then, even as the water splashed into the wafer's cradle, and the tech shrieked, "What are—" she realized that the programming wires were still jacked into her cortex. The wafer went up with a sizzle as she reached, catching the stench of burning plastic as she tried, random static leaping up the wires to smash her sideways, hand yanking out the leads an instant too late as the universe whited out into oblivion . . .

The memory cut off, and Rebel trembled. Where was she? Hospitalized? Recaptured? Heisen and Snow were still talking, the tall, slim woman looking down impassively at the fierce little man, and then Rebel remembered who they were. Neither had noticed her snapping out; it must have been a brief episode.

"I'm taking points on this one," Heisen said. "You hear me, Snow? I want points."

"Maybe it's too big for us?" Snow communed with herself for a long

moment. "Well, let's try." She addressed Rebel directly. "Let me put a hypothetical case to you. Imagine that you were approached by a small firm that does knock-offs of commercial personas. Suppose you were offered—" she cocked her head slightly "—three points for your help in making a clean recording. This would spoil your value to Deutsche Nakasone. No value, no interest—they'd leave you alone. Now, keeping in mind that without this deal they'll hunt you down and wipe you out of your own brain . . . what would you say?"

The episode had left a bad aftertaste in Rebel's mind. Or possibly it was just the day's events catching up with her. It was hard to concentrate. She shook her head. "I don't understand . . . knock-offs?"

"Well, let's say the current best seller is . . ." Snow listened, "a young man with the improbable name of Angelus. He is . . . sensitive, romantic, shy. The publicity wheels grind and suddenly every fourteen year old in the Kluster wants to be sensitive, romantic, shy. There's a big market for that persona. We lift an early copy, make enough changes to foil legal action, and dump a hundred thousand wafers on the grey market. These personas are not exactly Angelus, but they are sensitive, romantic, and shy. And cheap. The big kids make their big profit, and we tag along for a taste."

"Only this time," Heisen said, "we'll be on the market first, riding all that publicity free. They'll have to pick up on *our* wafer, and they're just not geared for speed the way we are. We can skim off the top profit for a good week before . . ."

Rebel's skin crawled at the thought of a hundred thousand strangers sharing her thoughts, her face, her soul. Experiencing her innermost feelings, her deepest emotions. She pictured them as pasty white insects, swarming in blind heaps, biological machines without will or individuality. "No," she said. "Forget it. I won't whore my mind."

"No, but dammit, you have no room to—" Heisen leaped up, reaching for Rebel, and she started to her feet. She found her balance and drew back a fist. She'd never been trained in heavy gravity fighting techniques, but the muscles of her new body integrated well with each other, and she didn't doubt that she could drop Heisen where he stood. Smash his nose first, and then—

"Stop." Snow's arm shot out from her cloak (a flash of corpsewhite skin stretched taut over bones, small black nipples on fleshless breasts) and formed a barrier between them. The arm was long, anorexic, and covered with silver filigree—exoskeletal muscle multipliers. Powered on, she'd be able to punch her fist through a slag wall, or break bones without thinking. "So far I've been speaking hypothetically; no offers have been made." Those unblinking eyes fixed on Rebel, as if she were a mystery

that they could penetrate by sheer force of will. Without turning her head, she said, "She could be a trap, Jerzy. Didn't you think of that?"

Heisen's face twisted. "No, I—but she could be, couldn't she?" He darted forward, and jabbed a finger at the floating wetware diagram. "Look at that! That split in the r-limb!" Then he calmed slightly. "No, you couldn't fake something like that. She has to be legit." But new sweat had appeared on his forehead, and there was a wary look in his eyes.

Snow folded her arm back into her cloak. She dismissed the diagram with a shrug. "More to the point, I find it hard to imagine a persona bum suddenly finding happiness and content in a new personality. It's a fairy tale." She glided back to her prayer rug, graceful as a geisha. "I'm afraid, child, that we are not ready to strike a deal at present. Much as I'd love to find out what's in that intriguing mind of yours." At her side, Heisen trembled like a hound on a leash. She shook her head. "We've found out as much as we can without getting our fingers burned."

In the silence that followed, one of Snow's hidden spikes whispered in Rebel's ear, in a voice that was both like and unlike Snow's own: "Deutsche Nakasone's goons will be here in a minute." A laser flashed holo images on one of her retinas: a convoluted local street-and-gallery map. Two blinking lights crept toward Snow's office. "Jerzy will have to be sacrificed, but if you turn left when you leave and run like hell, you ought to escape." The map vanished. "Go wherever you wish. We will know if you escape. And when you're ready to do business, one of us will contact you."

Snow herself had not spoken. She stood slim and solitary as a madonna. Aloud, she said, "The door is behind you."

Rebel turned and fled.

Outside, she ran blindly down the hot and heavy corridors of downtown. She fled randomly, through crowded galleries and empty alleyways, until she was gasping for breath and covered with sweat and her fear rose up and swallowed her.

Chapter Two: KING JONAMON'S COURT

An indefinite time later, Rebel found a cluster of data ports in the center of a tiled courtyard. She had no idea where she was. Someplace midtown, to judge by the gravity. Jungle birds flitted between crowded boutiques. A sheet waterfall splashed into a shallow pool. By its edge, a vender sold copper coins to throw into the water.

Without her telling it to, Rebel's body drifted to a data port. Her head felt buzzy and light, as if it belonged to somebody else. From a vast distance she watched her fingers touch the screen twice, programming

it for realtime communication. They tapped in an access code, and she wondered who it was for.

A male face appeared in the port. It floated in blackness, with no visual backdrop. Under a painted constellation of five-pointed gold stars, the eyebrows rose in surprise. "It's been a long time."

Rebel listened with detached fascination as a shrill, rapid voice from her own mouth said, "I have to hide. I have to crawl under my face and pull it in after me. I have to get away." Her face began to cry. "I don't have any money and I can't trust anyone and I need your help."

The stranger's face shifted, startled and alarmed. "My God, what have you done to yourself, Eucra—?"

"Don't use my name!"

Blank astonishment. Then, another instant shift of expression and the man grinned. "Gotcha, Sunshine. Listen, my shift has just started, but maybe you should join me anyway. I'm a vacuum bum these days, scraping flowers, nobody's going to look for you rockside. You think you can find your way to the Labor Exchange using public transit?"

Rebel wasn't following the conversation at all. Her head nodded.

"Okay, once you get there go to the Storage and Maintenance gate. Tell them you want work as a scraper—we're always shorthanded, they'll give it to you. Mention my name so they put you on the right crew. It's all piecework, they don't care diddly-squat whether you put in a full shift. I'll have them issue you vacuum gear against my account. That clear? Think you can do that?"

Her body took a deep breath. Her voice said, "Yeah."

Rebel was scraping vacuum flowers off the surface of Eros when she came up from under.

It was dull, nasty work. The shiny blue blossoms were surprisingly elusive. Her visor polarized out glare, turning the bright flowers into a field of black stars. She had to reach into darkness to find them. Their stems were as thin as wires and tougher. Worst of all, the gravity was so slight that a careless move would send her bounding meters away. She hovered over the rock, keeping afloat with touches of toe and finger as she angled her clippers under each bloom. Her muscles ached with tension and fatigue.

The inside of her vacuum suit stank, and her collecting bag was only half full. It dragged behind her like the abdomen of a queen bee. Her helmet buzzed with voices as the work gang traded chitchat on the intercom channel. "—and I swear no lie," a male voice drawled, "I was the suavest thing on two legs. They throw in a hardpacket of etiquette with the persona, you with me? So I know what fork you use to pick your nose

with, and all. Not only was I suave out in public, I was even suave sexing it up afterwards."

"Oh yeah? Maybe I oughta try you out," said an amused female voice.

"Tamara, honey, the onliest thing less likely than me sexing you up is me admitting to sexing you up." Hoots of laughter. "You get one of your menfriends to try this program, though. I mean that."

"Hell," went a second female voice, "one of Tamara's menfriends gets suave, and he'll—"

She snapped off the intercom. Something was shifting within her, and she didn't know who she was, Eucrasia or Rebel. Rebel or Eucrasia. "Let go," she whispered savagely, and she was herself again: Rebel. But a sense of her other self lingered, hovering over her. She hunched her shoulders and ignored it as best she could, and kept on scraping flowers.

The work was soothing. Her fingers moved with a will of their own, clipping flowers and stuffing them into the mesh bag at a regular, efficient rate. Ahead of her, endless mats of vacuum flowers unfolded to the horizon, each bloom the size of a human head, but so fragile it crumpled to nothing at the touch of a gloved finger.

The sense of Other remained, though, until her entire back itched with the touch of imagined eyes, and she glanced back over her shoulder.

There was no one there. Just a stretch of bare rock and harsh shadow and, in the distance, a few low utility buildings and several freight lots. The lots were simply areas where the rock had been ground flat for storage purposes. Some were vacant. On others, orange and green and yellow crates were piled skyscraper-high. Machines as delicately jointed as mosquitos climbed the stacks, adding and removing crates. Below them, vacuum bums wrestled more crates from magnetic cushions or into elevators, standing back as the cargo was flung up and away.

What are you hanging around for? Rebel thought angrily. She felt like crying, but sternly suppressed the urge—tears were a bitch in vacuum gear. I won't step aside for you. This is *my* mind now.

A scrap of trash lightly hit the surface near Rebel, bounced up, and floated slowly downward, orange and red and twinkling. A crushed bit of packaging for something that had been consumed somewhere in near orbit. Rebel reached down, tried to gather too many blossoms at once, and received a small shock through her work gloves as the flowers shorted out. "Oh, shit!" She flung the things down in disgust and sat up. A cannister city was lifting up over the flower-bright horizon. She could see a random scatter of habitat lights through a window wall, small and bright, like inner stars. And now it came to Rebel that she was on the strange planet she had seen from the hospital. Eros. She was on the asteroid Eros in the center of Eros Kluster.

Just like that, Eucrasia's ghost was gone, vanished like a bubble in vacuum.

Rebel looped her bag's tieline over a rock outcrop, pulled it snug, and rolled over on her back, letting the light wash over and through her.

Staring into the Kluster, she again felt mingled familiarity and awe. Spread against the starscape was an artificial galaxy of spinning wheels, variable gravity factories, geodesic towns, warehousing grids, slagsided cylinders, farming spheres . . . an infinity of structures, all painted in miles-wide supergraphics and bright as small suns. Counterspinward, to the Kluster's trailing edge, the arrays of refinery mirrors were awash in waste light. Starward, robot lightsails tacked and lofted, bringing in semiprocessed ores. Closeby, access craft and vacuum-suited spacejacks twisted through thin lines of traffic holograms. For an instant she almost choked on the beauty, the complexity of it. She wanted to laugh or to cry. And then—

"Heads up, Sunshine!"

A gloved hand slapped her helmet, switching on the intercom. Rebel shot to her feet, went tumbling, and was pulled back by a man in a floral print vacuum suit. Five-pointed yellow stars, in the pattern of the Northern Cross, dominated the print. In the helmet's gold visor she saw her reflection with a smaller, distorted image of the man on her own visor. He jerked a thumb upward. "Shift's over. Time to bounce home."

The man loped off in slow, ludicrous low-gee hops, and Rebel followed. He was built tall and gangly, with narrow hips and tight little buns.

Bouncing in from all points, the work gang converged on the shabby elevator. One by one they floated harvest bags into the field, watched them flung upward, and followed suit themselves. Their work garb was all customized with iridescent planetscapes, clouds-and-rainbows, mock Mondrians, Pollocks, Van Goghs. Rebel glanced down at her own suit. Silvery and unmarked.

"Here you go, Sunshine. Slip this on the tieline." The man gave her a slug of iron with a hole in its center. She snugged the line and wrangled her bag forward. It vanished. "Listen," she said, "we've got to talk."

"Yes, but not here." He touched the small of her back, and lofted her into the elevator.

The field nabbed her. With heart-stopping suddenness, the asteroid shrank beneath her. She could see it as a whole again, the way she had from New High Kamden, an awkwardly lopsided spindle of a planet with continents that burned a metallic blue-white, and seas of ink. The seas were areas scraped clean of the flowers. A traffic redirector snatched her, and the asteroid veered wildly away, and the Labor Exchange geodesic

exploded in her face. She plowed into the magnetic cushion, slowed, stopped, and was nudged gently to an airlock.

The bourse was aswarm with workers. Rebel swam in, past new shifts that were suiting up and leaving. Completed shifts kicked by, laughing and chattering, folding back helmets and shucking their suits. She followed a rainbow print suit that had been in her work gang, and rode a mag line to the Storage and Maintenance gate. A large-breasted paymaster sat in knee rings there, holding a salary machine in her lap. "Step it up," she snapped.

Hastily, Rebel pulled off a glove and inserted her hand in the machine. It read her prints, calculated mass of flowers scraped, and extruded a thin silver bracelet. It felt odd on her wrist. She kicked off and the rainbow suit was nowhere to be seen. She had no idea where she should go now.

Then someone bounced lightly against her, nudging her into a mag line. "See you on the other side, Sunshine," he said, and she shot through a doorway. That same man. At line's end, she almost missed the grab bar because she was craning about, trying in vain for a glimpse of his face.

She followed a burly woman into the locker room. Aping the woman's actions, she collapsed her suit, stuffing it and her *cache-sexe* into the helmet along with the cheap set of arm and leg bands she'd been issued, and dumped the lot into a cleaning chute. Then she kicked into the showers. She washed with a soaped towel, rinsed with a wet one, and kicked back into the lockers.

The locker room was a pentagonal tube, with lockers on all the walls. Rebel floated among the laughing, chattering women, and couldn't remember which locker was hers. But the memory was there, even if she couldn't access it. Her body knew what to do. She let it go where it wished, and came to a locker that opened at her touch. Inside were her clothes and work gear, freshly cleaned.

Anchoring herself in a foot ring, she donned *cache-sexe* and travel bands. Then she slipped into the knee rings and popped up a mirror. That same disconcerting, button-nosed face stared at her from her reflection.

All about her, women were dressing and reprogramming themselves, painting their faces to match their new personas. The room was full of marilyns and pollyannas, the occasional zelda, even a suzy vacuum. A xaviera, seeing her frozen in indecision, paused from painting her lips vulval pink, and proffered her wafer. "Here you go, honey. Open wide and give it a try."

Rebel blushed and looked away, and the women hooted with laughter.

She snatched up her things and fled, her face as naked as the day she was born.

Outside, a man grabbed her elbow, and without even thinking, she punched him in the stomach. He doubled over into his cloak and floated away backwards, a perfectly amazed look on his face.

Then Rebel saw the stars painted across the man's face and realized that this was the stranger she had called. Flustered, she reached out to steady him, but he had already snagged a grab bar and was watching her with a closed and wary expression.

"Listen, I'm sorry," Rebel said. "I didn't mean to hit you. I'm sorry I even called you in the first place. Why don't we just shake hands and go our separate ways?"

The stranger regarded her steadily. "You're not Eucrasia any more, are you?"

She met his gaze. His eyes were green. "No."

Briefly, the man's face went blank, as if he were arguing with himself. Then it cleared and he said, "Look. I live in King Jonamon's court, Tank Fourteen. That's probably the best place you could go, if you're on the run from something. There's a couple of shacks empty. Come with me, and I'll stake you the first week's rent."

"Why would you do something like that for me?" Rebel asked suspiciously. "Just who are you, anyway?"

"I'm . . . an old acquaintance. A fellow-worker." He tapped behind one ear, and Rebel saw a small red abrasion circle there. "We persona bums have to stick together, right?"

"I—" Rebel retreated into the folds of her cloak. "Look. I'm sorry. It's just that people have been taking a lot of interest in my case lately. I didn't ask for any of it. I don't want any of it."

"Okay, then." He shrugged and turned away.

Something desperate came tearing up from deep within Rebel then, and she cried, "Wait!" The man turned back. That cautious face. She colored, because she had no idea why she had cried out. To cover, she said, "Maybe I was a little hasty."

Another instantaneous shift of expression, and the man laughed heartily. "You crack me up, Sunshine."

"Don't call me that!"

"All right. Eucrasia, then."

Her face felt cold and hard. "The name is Rebel," she said. "Rebel Elizabeth Mudlark."

"Wyeth." A lopsided grin and a shrug said that that was all the name he had.

* * *

They took a jitney to the tank towns, crammed hip and knee with twenty others, almost too tight to breathe. It carried them to the shadow of the Londongrad cannister, where a cluster of fifty-year-old air tanks floated. They were enormous things, each large enough to hold an entire cannister city's atmosphere under pressure, and retrofitted with crude airlock and docking facilities. Faint traces of rust edged the locks, where the long whisper of oxygen leakage ghosted over metal. "Jeez, it's hot in here," Rebel grumbled. "I should've just gone solo in my suit."

"What's that?" Wyeth asked. Then, when she repeated herself, "Tank towns don't have magnetic cushions. We're talking heavy-duty slums here." The jitney pilot slammed into a dock and bawled, "Tank Fourteen!" and they squeezed out.

The light was dim at the locks and murky beyond. They swam up a crowded corridor, through ramshackle hutches that were no more than pipework frames with corrugated tin sheets for walls. The air was fetid with rotting garbage, stale wine, and human sweat, with a sweet undersmell of honeysuckle. Children shrieked at play, and there was a constant yabber-yabber-yabber of voices. Bees hummed as they moved mazily among the flowery vines that overgrew everything. A green rope led up the corridor, and they followed this handway, occasionally grabbing it to twist clear of an oncomer, until it was crossed by an orange rope. They took this deeper into the tank.

A raver came down the rope, and people shrank away from her. Wyeth grabbed Rebel and pulled her out of the way. They slammed noisily against a tin wall, and then the woman was gone, and they proceeded up the rope.

Now and then light spilled from a doorway, or a string of lanterns lined a cluster of informal shops and bars, places where people offered alcohol or other goods from their own homes. Everywhere the vines were thick and lush, with frequent biofluorescent blooms. There were sections where the flowers provided the only illumination. "This is awful," Rebel said.

Wyeth peered about, as if trying to detect what flaw she saw in his world. "How so?"

"It's like a parody of my home. I mean, if you know the biological arts, there's no excuse for this kind of squalor. Back home, the cities are . . ."

"Are what?" Wyeth asked.

But the hard, undeniable truth was that she could not remember. Not a thing. She tried to recall the name of her city, the faces of her friends, her childhood, the kind of life she'd led, and none of it would come. Her past was an impressionistic blur, all bright colors and emotions, with no fine detail. "I don't know," she admitted.

"Sunshine, your answers are about as revealing as your silence."

Wyeth touched her arm. "Here we are!" He grabbed the rope to stop himself, flipped over, and kicked through an opening between hutches. Rebel followed.

A skeletally thin old man leaned out of a shanty window into the entranceway. "Hallo, Jonamon. How's the kidneys?" Wyeth said. He was wearing his laughing face. "Got a new tenant for you."

"Hallo yourself." The old man's skin was fishbelly white, and red blotches ran over his bald pate. "Rent's due tomorrow." Then he noticed Rebel, and pursed his lips suspiciously. "You the religious type, girlie?"

Rebel shook her head.

"Then where's your paint?" He jabbed a bony finger at the abrasion circle behind Rebel's ear, and said to Wyeth, "You put the mark on her! Don't allow none of that shit in my court. I run a clean place here—no drunks, no whores, no burn cases, and no reprogramming. I don't care what kind of excuse you got, God don't like—"

"Hold on, hold on—nobody's reprogramming anybody!" Wyeth said. "What are you ragging on me for? The lady's right here, you can ask her for yourself."

"Be damned if I won't." The old man swam out the window, chasing them into the courtyard. Then he grabbed the side of his hutch, muttered, "Damn! Forgot the book," and darted back through the window.

The courtyard was just a large, open space fronted on by some dozen or so hutches. Three ropes crisscrossed the area, tied to outcroppings of pipe. Here and there people clung to them, chatting or working on private tasks. A young man sat wedged in a doorway, playing guitar.

"I'm sorry about this," Wyeth said. "Old Jonamon is a terrible snoop, even worse than most landlords. He was a rock prospector seventy years back, one of the last, and he thinks that gives him the right to pester you half to death. If you don't feel like facing him, I think I can put him off for a day or so. That'd give us time to find you a place nearby."

"Actually," Rebel had been chewing thoughtfully on a thumbnail; now she spat out what she had gnawed off, "I think I would like to talk about it. All these weird things have been happening to me, and I haven't had the chance to sort them out. And I guess I owe you some kind of explanation, too." She frowned. "Only maybe I'd better not. I mean, there are people out there looking for me. If word got out—"

Wyeth flashed a wide, froggish grin. "There are no secrets in a tank town. But there are no facts either. You tell your story to Jonamon and in ten minutes the whole court will know it. Inside an hour everyone within five courts will know—but they'll have it a little wrong. Half the people in the tanks are on the run from something. Your story will melt into theirs, a detail here, a name there, a plot twist from somewhere else. By tomorrow all the tank will know the story, but it will have mutated

into something you wouldn't recognize yourself. Nobody's ever going to trace those stories back to you. There are too many of them, and not a one that's worth a damn."

"Well, I—"

Jonamon swooped into the court, a scrawny old bird in a tattered cloak, pushing a book before him. It was three hands wide and a fist thick, with one red cover and one black. Opening it from the black side, he said, "The Lord Jesus despised reprogramming. *And behold the herd of swine ran violently down a steep place into the sea and perished in the waters*, that's from Matthew."

Wyeth looked like he was having trouble holding his laughter in. "Jonamon, that's the third time this week you've quoted the Gadarene swine at me."

"Krishna don't love demons neither," the old man snapped. He flipped the book over, red side up, and thrust it at Rebel. "Swear on the Gita you ain't been reprogrammed. That'll be good enough for me."

"Maybe I'd better tell my story first," Rebel said. "Then I'll swear it's true afterwards. That way you'll know what I'm swearing to." She shifted to a more central spot, sitting cross-legged in the air, the rope gripped in one foot. Then she wrapped her cloak in storytelling folds (inwardly marveling at her own dexterity) so that one arm and breast were covered and the other arm and breast free. Seeing her thus, people came out from their shanties, or shifted places on the ropes so they could hear.

She began:

"I was dead—but they wouldn't tell me that. I was lying in a hospital bed, paralyzed, unable to remember a thing. And they wouldn't tell me why. All I knew was that something was wrong, and nobody would answer any of my questions—"

When she was done, Jonamon took her oath on his book, and shook his head. "Well, I'll be fucked if that don't beat anything *I* ever heard."

"Mmmm." Wyeth's face was grim and stony, lost in thought. It had a humorless, almost brutal set to it. He looked up suddenly, and glared around at the listeners. "What are you staring at? Show's over. Go away!" They scattered.

Rebel shivered. He looked an entirely different man now—a thug, all suspicion and potential violence.

Jonamon laid a hand on her knee and said, "You watch yourself, young lady. Deutsche Nakasone is a nasty bunch, they'll do what they want with you. They just don't give a fuck." She drew away from him.

"That's every gesellschaft, old man," Wyeth said. "That's inherent in the corporate structure."

"You think so, eh? Let me show you something." Jonamon hurried off

to his shack and returned with a cloth-wrapped package. "Maybe I'm just another old man with calcium depletion now." He began slowly unfolding the cloth. "I'm stuck here nowadays, my bones would snap like breadsticks if I set foot in full gravity anymore. But I wasn't always like this. I used to own my own corporation. Hell, I used to *be* my own corporation."

The ropehangers had come edging back to listen. One of them, a lean young man with rude boy paint, caught Rebel's eye and flashed a smile. Cute little thing. He laughed, and Jonamon glared at him. "Laugh if you want. Individuals could incorporate back then. You can't imagine how it felt, having all the legal protection of a corporation to yourself. It was like being a little tin god." He sighed. "I was one of the last, wiped out by the Corporate Reform Act. I was a rock miner, maybe Wyeth here mentioned that to you. A prospector. When the Act came along, I had claims on a few hundred rocks, a real valuable inventory, worth a fortune back then, and even more now. But with the reforms, I had to liquidate. I entered into negotiations with a number of concerns, finally signed a preliminary letter of intent with Deutsche Nakasone. Look." He held up the unwrapped package. It was a formal holographic portrait of a line of corporate functionaries looking serious for the camera. The young Jonamon stood in the center, a sharp-chinned man with an avaricious cast to his face.

"This was taken the day before the Act went into effect. Right after this, the president and I retired to a private office to settle the last few details and sign the agreement. You never saw anyone so nice and polite in your life. Did I want a drink? Don't mind if I do. Would I like to screw? Hell, she was kind of cute. Then she asked if I wanted to try out a new program they had. Made it sound real nice. I said sure.

"They was just getting into wetware then. Just recent bought up a batch of patents when Blaupunkt went belly-up. So anyway, the president puts the inductor band around my head and turns the damn thing on. Whooooeee! That was one hell of a ride, I'll tell you. Even today, I blush to think on it. Imagine all the sex and pleasure you can take just slamming into you again and again, so intense you can't hardly take it, and you want it to stop, only . . . not quite yet. Just a little bit longer before it becomes unbearable. Can you imagine that? Shit, you can't imagine it at all."

"So what happened?" Rebel asked.

"What happened was somebody turned it off. Wow, did I feel awful! Kind of hungry and achy and thirsty all at once. My head was pounding, and I must've lost half the free water in my body.

"The president had put her clothes back on and left, a long time back.

There was a couple of corporate guards giving me the hairy eyeball. 'What's happening?' I asked them.

"They told me that the Reform Act had just gone into effect, and they didn't need me anymore. Then they gave me the bum's rush, and I was never in *that* office again in my life, let me tell you.

"You see what happened, don't you? They'd kept me programmed up until the Act went through and I didn't legally own my claims anymore. And because I'd signed that letter of intent, they all belonged to Deutsche Nakasone now. They never paid me a damn thing for them either. I went to the lawyers and they said it's all legal. Or rather, to prove it *wasn't* legal, I'd have to be a corporation myself. And I wasn't, anymore."

After a long silence, he said, "Well, it's all to the best, I imagine. A young man thinks with his gonads. An old man sees things more spiritual. I made my peace with God, and I take my solace from the Bible Gita now."

Rebel yawned then, and Wyeth said, "I think it's time you turned in."

He showed her to a vacant hutch. It had room enough for two people to sit and talk, or for one to stretch out and sleep. There was a bit of wire by the doorframe so she could tie up her helmet, and four looped hammock strings to sleep in. Nothing more.

"Best break out your rebreather," Wyeth said. She looked at him blankly. "From your helmet. Ventilation's poor in this corner of the court, and your waste gases can build up while you sleep. Keep your mouthpiece in, and you can avoid waking up with a bad headache."

"Okay," she said, and he kicked away. There was no window, and hanging her cloak over the doorway filled the hut with darkness. She stuffed her things into her helmet and slipped into the hammock strings. Hanging suspended, she bit down on the rebreather. Her breath sounded loud and slow within her skull.

The outside noises were muffled within the hut, but constant. Music and faraway argument blended into each other. Buried deep within this human beehive, Rebel felt painfully alone and isolated. From somewhere distant she heard a dull *clank-clank, clank-clank*, someone hammering on the pipes to signal a neighbor. She had heard (though she couldn't remember when or where) that the constellations of courts within the tanks had all been put up helter-skelter, pipes mated to existing pipes, forming monkeybar tangles with no plan or formal structure. Only the lack of gravity kept it all from collapsing. But occasionally the stresses of everyday living—people slamming against their hutches, kicking off from them, grabbing ropes tied to the frames—would cause whole groupings of court structures to shift. Torque forces would slowly swing the hutches together, crushing entire neighborhoods in a scream of buckling

metal. And then the survivors would scavenge the rubble to build back into the space thus opened.

Rebel was so tired she couldn't sleep. Lying afloat in her hut, restless and jumpy, she felt so lonely and awful she wanted to die. She twisted and turned in the hammock strings, but no position seemed comfortable. She was as lost as a child away from home for the first time, cut loose from security and surrounded by hostile forces against which she had no defense.

Finally she could take it no longer. Throwing on her clothes, she darted across the court to Wyeth's hut. He'd talk to her, she was sure. A deft grab on one of the ropes flipped her around and brought her to a dead stop just before his door. It was covered with his cloak. She was about to rattle his wall when she heard his voice within. Was he with someone? A little self-consciously, she floated closer to eavesdrop.

"She's trouble," Wyeth mumbled. "Deutsche Nakasone wants her bad, and anyone who gets in the way is going to be hurt . . . So there's risk! She could be an enormous help to us . . . Which 'she' are you talking about anyway, Eucrasia or Rebel? . . . Go with the current occupant, that's always the easiest course. Whoever comes out on top . . . I wouldn't mind getting on top of her . . . Oh, get serious! The point is that if we cut a deal with her, we're risking everything we've built so far. It's an all or nothing gamble." There was a pause, and then Wyeth said, "Risking everything! That's just great. We're risking a half-hour shanty in the slums, some cockeyed plans, and our perfect obscurity. That's it. What's the use of saying we're going up against Earth, if the first good opportunity that comes along, we just sit here on our thumbs? I say either we stand up and be counted, or dissolve the whole thing right now as a bad job. Any argument?"

The voice stopped, and Rebel drew back from the door. He's talking about me, she thought. And he's crazy. Either he's crazy or he's something I don't know about that's probably worse. A word floated up from Eucrasia's past. Tetrad. It was a kind of new mind. But that was all she could remember about it. Her body trembled. She wanted very much to turn around and retreat into her hutch.

No, she thought, I won't be a coward.

She rattled the side of Wyeth's hutch, and a second later he poked out his head. "I heard you talking about me," she said.

Wyeth took down his cloak and wrapped it about himself. Rebel got a glimpse of his naked body and reddened. "How much of what I said did you understand?" he asked.

She shook her head helplessly. "You're making that face again."

Wyeth looked surprised. Then he grinned, and his harsh expression

was instantly and totally gone. "I was trying to make up my minds. You're something of a dilemma for me, Sunshine."

"So I gather."

"Look, I'm only in partial agreement what to do at this point. Let's both sleep on it. We can discuss this thing better when we're rested, okay?"

Rebel considered it. "Okay."

Back in her hutch, she lay half awake for the longest time, thinking wide, empty thoughts. There was a knife fight in the next court, two young bloods with rude boy programs, cursing and swearing at each other as they jockeyed for position. A young couple were going at it hot and heavy not far away, separated from her hut by only an arm's length of nightflowers. A baby began to cry and was shushed by its mother.

Closeby, a peeper frog cried out for a mate.

If you floated right up against them, the iron pipes and tin walls had a distinct odor. It disappeared as you moved away, but was strong up close. There was nothing else quite like that smell. It must stay with slum dwellers, Rebel thought. No matter how far they might get from their tanks, a smell like that would stay with them for the rest of their lives.

Chapter Three: STORM FRONT

Someone kicked her wall in passing, and Rebel awoke. Blearily, she dressed and floated out. Of the three sometime restaurants in the court, only the one marked "Myrtle's Joint" had its window open.

She rapped for service and an iguana scurried away and burrowed into the vines. Myrtle's face flashed out of the gloom with a quick smile. Rebel yawned and woke up a little more and said, "I'd like to buy some food."

"What meal?"

"Breakfast."

Myrtle ducked down and rummaged about. "I got a mango. I could slice it up with a little chutney. There's a dab of spiced rice that's not too old. And beer."

They haggled up a price and Rebel took a place on the rope as Myrtle put breakfast together. "Hey. My man told me about how you used to own a corporation and all. I just wanted to say I'm sorry."

"That's okay." A flock of naked children darted into the court, shrieking and laughing. For an instant the air was full of them. Then one spotted a gap between hutches and darted through. The others followed and were gone, as quick and sudden as minnows.

Rebel ate slowly. Finally she licked a last bit of chutney from a knuckle

and returned the empty Belhaven tube to Myrtle. "Um, this is kind of embarrassing, but how do I find the—?"

"Orange rope downgrain to blue, blue upgrain to red, that'll take you to the shell." Myrtle laughed. "From there you can just follow your nose."

The community toilets were overgrown with masses of nightbloom. The leaves rustled and waved in the wind from the airstacks. But under the flowery scent was a darker smell of human waste and of body gases. She swam in the ladies entrance and took a seat on the communal bench. It was cool here. The air flowing down the holes was enough to hold her on. Resting her elbows on the grab bars, she read the graffiti: There were the usual EARTH FRIEND and NEWMINDS/FREEMINDS scrawls, with an INDIVIDUALITY DOES NOT EXIST written in one hand and SPEAK FOR YOURSELF scratched beneath it in another. The only really interesting graffiti was EVEN YOUR SHIT BELONGS TO THE RICH.

Well, it made sense. Considering that almost none of the food eaten here was grown within the tank. The toilets had to be emptied to keep the tank towners from literally strangling in their own wastes. The nightblooms helped keep the air fresh, but *somebody* had to replenish the oxygen that was lost in tiny gasps every time the locks swung open and shut. Even a drastically oversimplified ecology like this needed to be looked after.

The entire Kluster, in fact, was an extremely loose system, leaking air and garbage from every pore. To Rebel's eyes it was criminally wasteful how much oxygen and water vapor, reaction mass and consumer trash must be lost to the vacuum every day. Any attempt to tighten the system had to be applauded.

Still, it was humbling to think that the tank towns were being maintained by people who saw them simply as fertilizer farms.

She was leaving the toilets when a familiar voice hailed her from the cluster of commercial data ports next door. Wyeth, helmet on arm, waved and kicked up to join her. "I'm just about to leave for work," he said. "But I've cloned my briefcase for you." He gave her what looked like a hand-sized plate of smokey glass and felt like amber, only cool. Small colored lights danced in its depths. Rebel touched one, and they all shifted. The device felt right in her hand. She felt a lot better having it. "You operate it by—"

"I know how to work this." She ran a fast recursive and schemata appeared in the air over the plate. It was the only skill she possessed worth having, and she . . . but that was Eucrasia's thought, and Rebel suppressed it. "What have you got in there for me?"

"Your history."

She looked at him.

"I made a quick raid on Deutsche Nakasone for their unclassified data on Rebel Elizabeth Mudlark." He touched the plate and two tiers of yellow lights lined up against the right-hand edge. "As you can see, there's not much. A fast-edited history put together for publicity purposes, I'd guess. I thought you'd be interested."

"Yes." She closed her hands around the briefcase, held it to her stomach. "Won't that lead them to this tank, though? Won't they be looking for this kind of data request?"

"I don't see how," Wyeth said. "Sandoz Lasernet is very big on equipment optimization. They keep their trunk lines flickering on and off constantly. In the fifteen seconds my call took, it was probably routed through half the cities in the Kluster. Following it would be like trying to track a feather in a methane storm. You'd need a program with full sentience and a lot of power to do it."

Eucrasia's memories were fading quickly, so that the beginning of Wyeth's explanation had seemed childishly oversimplified, and the ending almost opaque. "Won't they have a sentient program on the job then?"

"After what happened to Earth?" Wyeth laughed. Then he said, "Listen, I've really got to be going. Enjoy. I'll see you when I get back."

Rebel wandered back to Jonamon's court, the briefcase in her cloak pocket as thick and massive as a bad conscience. She wanted to view it, to see what it could tell her about herself, and yet she didn't.

While she was perched on a rope thinking, the young rude boy she had noticed eyeing her the other day emerged from the vines between two hutches. His torso was mahogany dark and very long, and for an instant she thought he was naked. Then his orange *cache-sexe* appeared. He held something in one hand, and with the other reached for a cloak that had been left tied to a hutch frame.

He noticed her.

For a moment neither moved. Then the boy fastened his cloak about his shoulders, and walked up the rope toward her, gripping the line between his toes. He smiled, and showed her what was in his hand.

"Honeycomb." His dark eyes sparkled. He cocked a hip slightly, bringing his muscles into sharper delineation, and bit into the wax. His mouth and chin glistened. "Want some? My name's Maxwell."

"I can't," Rebel said helplessly. Brushing open her cloak, she dug out the briefcase. She held it forward, two-handed. "I've got to listen to some stuff."

Maxwell took the briefcase and, holding it upside down, solemnly examined the lights. "Listen to it in my hut. I'll feed you honey while you work."

"All right."

She wedged the briefcase between wall and pipe as Maxwell pinned up their cloaks. A touch converted it to spoken command. She waited until the hutch was dark, then said, "Please turn on." Light blossomed.

The holography opened on a shot of Eros Kluster Traffic Control. The EKTC station was shaped like a barbell and revolved slowly within a maelstrom of traffic holograms. "How's this?" Maxwell asked. The image rippled over his body as he swam to her.

"Mmmm." Rebel skipped the scene forward.

They were in the interior now, a hemispherical transparent hull crisscrossed by thin catwalks between work stations. The traffic techs looked upset. One man bounded toward an empty terminal, not bothering with the catwalks. He left a smudge of bare footprints across the starry floor.

"That can't be—" someone said. Rebel backtracked the program.

"Open up," Maxwell said. He popped a bit of honeycomb into her mouth. Sweet.

An operator gave a long, low whistle. "Look what just came up on visual!" His supervisor was at his side at once, a big woman with a bulldog jaw. "Now that *ought* to be a lightsail," the man said. "Spectroanalysis gives us a solar signature, ever so slightly blueshifted. But it's not registered, and it's headed right down our throats."

"Velocity?"

"Hard to say." The tech's fingers flickered, coaxing up data. "If it's a standard size sail, though, and assuming a median range load of five kilotons, then it'll rip through the Kluster sometime tomorrow."

"Shit!" The supervisor pushed him from his station. "Grab something vacant and restructure the programming to give me more capacity. Take it off of, um, the holos. Let them drift a bit. Set them to correct only once every point-zero-three seconds, okay?"

The operator bounded toward an empty terminal, not bothering with the catwalks. He left a smudge of bare footprints across the starry floor.

"That can't be—" the supervisor said. "No, that doesn't make any sense at all. That's not an industrial delivery."

"More honey?"

"Mmm." Maxwell's fingers lingered on her lips, and she kissed them absently.

Another tech said, "We're having trouble estimating mass. There's something screwy about the way it's slowing down." Rebel stopped motion, and asked the briefcase to give her the terminal display. It appeared, a chart in seven colors, showing every pinprick of light as it appeared from the EKTC station. It pulsed, and the lights shifted to an earlier configuration. A speck of light, circled in red, raced sunward, from beyond

Jupiter. A sidebar identified it as COMET: COMMERCIAL CARRIER (LUMBERED TREE FARM).

The EKTC system was crammed with economic warfare programs. Reflexively, it showed the positions of other lumbered comets moving into the system. It also showed a pod of young comets climbing up from the Sun, their tails of ionized gases winking out as new vegetation covered their surfaces. An operator wiped them off the screen.

"What a pig. You've got honey on your chin."

"Hey, I'm busy, okay?"

"Hold still and I'll lick it off."

Now a sidebar appeared with the comet's registry. It was a small, uncolonized comet, carrying a lumbered first growth of some seventy gigatons of oak, teak, and mahogany hybrids. The trees had been grown over one long swing down to the sun and back out to the edge of the Oort Cloud. There, archipelago lumberjacks had coppiced the comet, leaving roots intact for a second growth, and then artificially accelerated it for its trek back into the System. Eros Kluster speculated heavily in timber, but this was not a local deal. The freight was due to Ceres Kluster as per a contract signed some two decades ago. Since Eros had no financial interest in it, the traffic computer had never before seen fit to bring it to human attention.

Maxwell followed a trail of dribbles down the side of Rebel's neck, toward her breasts. She giggled and pushed him away. "That tickles."

The display shifted to fast replay. The comet rushed down on Jupiter. It dipped into the giant planet's gravity well, was slewed around and emerged on a new orbit. It dumped velocity in the process, shifting to a shorter ellipse that would take it within the orbit of Mercury, and then out again to its client Kluster. The readout shifted momentarily to show the Inner System with old and new orbits displayed as dotted yellow lines.

"How about this? Does this tickle, too?"

"No. That's nice."

Midway between Jupiter and Eros, the comet's brightness quadrupled. There was an explosive flare of light, which quickly fell behind the comet—a lightsail unfurling. It bobbed slightly on the solar wind, tacked gracefully. The computer ran a projected course for it. It was headed straight into the heart of Eros Kluster.

Rebel switched back to live action. "Go on," the supervisor said.

"The sail is tacked away from the sun. So the drag ought to be easy to calculate. But it's slowing down too fast for anything I've ever seen. Even a single kiloton shipment ought to . . ."

"Could the treehangers be dumping some kind of bomb on us?" the supervisor muttered to herself. "No, that's stupid. Maybe they—wait."

Try calculating the rate of deceleration for a short sail with a payload of a third of a ton."

Fingers danced. "Damn! It works."

"That's it, then. One human in a vacuum suit, plus the mass of a frame, controlling mechanism, and cables. I'd say that what we've got here—" she tapped the screen—"is someone using a small lightsail as a drogue chute."

"Beg pardon?"

"A drogue chute. Like a parachute—um, it's hard to explain. Just contact Perimeter Defense and tell them we've got a space cadet that needs rescuing. Dump the whole thing in their laps."

The scene shifted to the exterior of a Perimeter Defense multipurpose cruiser.

"Hey," Rebel said. "I don't think you're going to find any honey down there."

"Want to bet?" Maxwell was kissing and nuzzling her belly. Now he slowly moved his hands up her thighs and even more slowly pulled down her *cache-sexe*.

"Please stop," Rebel murmured. The briefcase shut itself off. In the dim light seeping through the ill-fitting edges of the tin walls, she saw that Maxwell was already naked. And interested.

Definitely interested.

They made love twice, and then she sent Maxwell out with her bracelet to bring back lunch. He returned with a huge meal and no change. They ate and then somehow they were making love again. It just seemed to happen. At last she had to say, "No, really. I've got to listen to this."

She flicked the briefcase back on.

The multipurpose cruiser had matched speeds with the lightsail. A dozen Perimeter Defense employees launched themselves at the rigging. Clumsily, surely, they cut away the harness, drew in the sail, and disentangled an unmoving vacuum suited figure.

Back inside the cruiser, workers swarmed about the vacuum suit. It was worn and frayed; crystalized patching ooze covered several small cuts. "Look," a medtech said. He pointed to a fine crazing of lines in the visor. "Poor bugger miscalculated acceleration stress. The internal organs are probably mush." He turned off the coldpack unit, and somebody else yanked off the helmet.

Acceleration jelly gone liquescent sloshed onto the deck, revealing a woman's face. It was angular, with high cheekbones. The hair, short and wet, was a mousy blonde. Her skin was a bloated and unhealthy white, almost blue in places. There were small globs of jelly caught in her nostrils. A tech wiped them away, and the woman took a sudden, gasping

breath. She shivered and opened her eyes. It was Rebel Elizabeth Mudlark, in her own body.

A trickle of blood came from the corner of her mouth. She grinned weakly. "Hey, sports," she said. Then she looked puzzled. "I feel kind of sick."

Then she died.

Maxwell was not looking when it happened. He was rummaging in a small corner chest for body jewelry. When he found a piece he liked, he'd try it on, preening for her. Now he turned, a string of pearls about his waist. "You like it?" He swiveled his hips, making the string spin. "It takes a good body to wear pearls."

The hologram drew slowly back, the scurrying Perimeter Defense people growing smaller as they vainly tried to revive the body. "Coldpack revival shock," a medtech muttered. "Damage to brain tissue complicated by cumulative radiation damage. Compression, shear, and tidal effects to liver, pancreas, heart—" Her voice droned on monotonously as she read the diagnostics into the record. Someone else put a cryonics unit over the head and flash-froze the brain. Later, the personality and surface memories could be teased out with supercooling induction techniques, if the traffic investigators needed an interview.

I died, Rebel thought flatly. She remembered it happening very clearly now, the faces bent over her, their concerned expressions, and the way it had all drawn away into whiteness as . . .

The pearls orbited Maxwell's waist like a ring of satellites. His navel danced at their center.

Now, as the Perimeter Defense employees slowed and the clamor of voices fell to a murmur, Rebel's name rose in black Gothic letters. It dominated the scene for a beat, then burst into sudden, bright flame. When the flames died down, a new Rebel Mudlark rose from them like a phoenix.

The new Rebel was an idealized version of the original, taller and thinner, with spectacular muscle structure. She stood wide-legged, fists on hips, and laughed self-confidently. The holō drew back. Green dyson worlds floated behind her, and she was surrounded by a ring of cringing admirers. One reached a trembling hand out for her, and she kicked him right in the mouth.

The words AVAILABLE SOON scrolled up.

"Turn it off," Rebel whispered desperately. "Oh God, turn that damn thing off." The memory of her death burned in her brain. She wouldn't be able to forget it again.

Maxwell picked up the briefcase, looked at it blankly, touched a glowing red dot. The room went dark. "Hold me," Rebel said. "I don't want to do anything, just . . . hold me, please hold me."

She floated in the dark, flooded with misery. She'd felt like this when her mother had died in the accident at the Kluster refineries. Her pain had caught her by surprise then, because she'd hated the cold bitch. You'll never hurt me again, she had thought angrily, and yet she'd still felt abandoned and desolate. She hugged Maxwell to her, like a big, sexless cuddly toy.

Vague shapes swam in her vision, threatening to coalesce into a stretched and bloated skull. She'd seen death's face before, as a child. Her first time solo in a vacuum suit, she had blundered across a laser cable and shorted out half her suit. Her visor went black and her re-breather stopped. Floating alone and sightless, gasping and choking, she had suddenly realized that she was going to die. And in that horrified instant, she saw a face before her, bone-white and distorted, with empty eye sockets, small dark nostrils, and black, gaping mouth. She threw her head back and the face lurched at her, and she was abruptly hauled in by a Traffic Control employee who injected an air line through the skin of her suit. It had only been her reflection, lit by a lone failsafed helmet monitor light.

Maxwell gently slid a hand between her legs and moved them apart. He started to enter her. Upset and distracted as she was, she almost let him do it. It would be the easy thing, the path of least resistance. But then the Rebel persona asserted itself, and she shoved him away. She would not let herself be taken advantage of.

"Back off there, bud! Who gave *you* permission to do that?"

Maxwell looked bewildered. "But—"

"You don't listen too good, do you? I said I didn't want to do anything, and I by God meant it." As she raged at him, Maxwell backed away, fell into a fighting crouch, straightened, crouched again. His hands fisted and unfisted. His face twisted with conflicting programmed urges. "What are you, some kind of machine? Willing sex isn't good enough for you?" Clumsily, Maxwell threw a slap at Rebel's face. She batted his hand away contemptuously, and tried to punch him in the stomach. He flinched back, and his string broke, pearls exploding in all directions. They bounced off the tin walls like hail.

"Just get the fuck out of here!"

Maxwell was backed into a corner, quivering. In a tiny voice he said, "But this is my place."

For a long moment Rebel glared at him scornfully. Then she laughed, and with a kind of rough good will, reached out to tousle his hair. "You're kind of useless, you know that?"

"It all depends on what you want," Maxwell said, eyes averted sullenly. But his tension was gone. He began gathering up the pearls that still bounced about the room, nabbing them out of the air and holding them

in one hand. "I mean, I can fight just as good as I sex, but I got to have clear signals. You can't expect me to—hey, what's that?"

"What's what?"

"Listen!" They fell silent. In the distance was a dull *clank-clank-clank* of people hammering on the pipes. It went on and on, growing in volume as more and more people to one end of the tank town hammered in unison. Rebel touched a frame pipe and felt it vibrating in sympathy. Outside, the constant murmur of voices died.

"It's the heat! God damn. We got to get away." Maxwell let go of the pearls and grabbed for his cloak.

"Get away? Where? What are you talking about?"

Maxwell was frantically struggling into his clothes. "You've never been in a raid before? They start by grabbing the airlock. That takes maybe a dozen jackboots. And they bring in a few crates of programming units and these enormous stacks of arrest programs."

"Arrest programs?"

"Yeah. Then they move out from the locks in a long line. They arrest maybe one out of five people they nab for failure to cooperate and sentence them to like six hours enforcement duty. Program 'em up on the spot, give them their orders and send them out to bring in more to be programmed. They spread out like a storm. Before long, you got jackboots everywhere."

In her mind's eye, Rebel saw the police expanding through the tank in an ever-widening cordon, swelling their numbers as they went, doubling every few minutes, like an explosion of yeast culture through a warm medium. "But what are they looking for?"

"What the fuck does it matter? You want them to get hold of you?" Maxwell untwisted a corner wire holding on the back wall and shoved the tin to show a thin, dark line of weeds. "Look, worse comes to worst, we can slip out back. Nothing there but vines. Only don't move around much, 'cause I got a beehive back there. I don't want you disturbing them." He took Rebel's hand and pulled her out into the court. "What we've got to do is slip past the storm front. See, they'll be spread out thin. Questioning everyone, right? Once we get by them, we're clear."

The court was empty. They swam to the gateway. "Does this sort of thing happen here often?" Rebel asked.

"Naw. Once a month, tops."

They paused at the gateway and looked down the corridor. Doors opening onto it had been shut, and windows tied down. It was crowded with people fleeing the jackboots. Suddenly there came a babble of voices from upgrain, and people hesitated, colliding in midair as those ahead of them turned back abruptly.

"What the hell—?"

"Keep moving, you idiots!"

"No, no! Turn back!"

A raver came down the rope, eyes full-mad and staring, globules of drool spewing from his mouth. He was a scrawny old man with a long grey beard, his cloak in tatters. He raged as he came, tearing with insane strength at whoever got close. One of his legs was broken and it waved fluidly behind him. It was clear he did not notice the pain.

"Sweet Krishna!" somebody wailed, and floated back from the raver, trailing large red spheres of blood. The corridor was filling with thrashing, panicky people. Somebody pushed past Rebel into the courtyard, and then two more. "Come on," Rebel said worriedly, "we've got to get away from here."

But then there was a rush on the gate and Rebel was borne back from the corridor while Maxwell went tumbling forward. A fat man jammed his pink face right up against her, shouting hysterically. Rebel grabbed a rope and pulled herself free of the crush of people, and then the rope broke and she slammed into a tin wall.

Shrieking voices rose in demon chorus. Rebel clawed across the fronts of the hutches to Maxwell's, and climbed inside. It took her only a second to slip out the back. She shoved the wall into place, and was hidden in the vines.

It was dark between courts. Here and there a nightflower glowed, a dull fuzz of light that revealed nothing. The vines were wet and slimy. Floating alone and sightless, like a traveler among the final stars at the end of the universe, Eucrasia's claustrophobia rose up within her.

It started as a tingling up the base of her spine, then spread until her entire body itched. She became aware of her own breath. The outside noises were muffled here, a dull wash of voices like the white noise of surf, and her breath sounded rough and raspy. She couldn't get enough air in her lungs. Her head swam dizzily, and she started breathing through her mouth.

Rebel's nose almost touched the back of the wall. The smell of metal was strong. Her skin crawled from the wall's closeness, and she drew back her head. That felt better. Slowly, almost by compulsion, she began pulling herself forward, through the vines. A honeybee burned past her ear and she froze, afraid of bumping into its hive. But stopping brought back the claustrophobia, and she moved forward again, occasionally reaching out a hand to touch the backs of the huts to keep from losing her way. Finally she came to a place where the tin was not. It was a gap between hutches, maybe even the one Maxwell had emerged from earlier. She crept into it.

Light slowly grew. Rebel paused when she could just barely see into

the court, buried an arm's length into the vines. She could bear being enclosed, so long as there was light. She drew her hood about her face, peering through the merest slit. Then she held herself motionless, like an old pike lying craftily in wait among the weeds.

The court was full of people looking for an exit that was not there. For every one who realized that and left, two more came in. They pushed and shoved at each other, and even exchanged blows in their blind flight.

Then the gateway filled with jackboots. They were a motley bunch, in all color of cloak and even work garb. One woman wore a welder's apron, though she seemed to have lost her mask. All had red stripes down the center of their faces, and fierce, merciless expressions. Three of them grabbed a young boy and fit a programmer across his forehead. He thrashed, and then went passive. A fourth held a piece of paper to his face, and he shook his head. He was shoved out the gateway, and another civilian was seized.

One of the processors was called away, and the next civilian questioned was programmed police. Somebody repainted her face, and someone else shoved a fistful of papers at her. One went flying, and Rebel saw that it was a cheap repro hologram. Her face—her new face, Eucrasia's face—floated above the paper, twisting and folding into itself when the paper doubled up against a hut.

Rebel shivered, and tried to keep from thinking about it. Later.

A heavy, bullish man snapped a length of pipe from a doorframe, and tried to smash his way through the gate. One jackboot fell back, clutching his head, but others seized the man's arms and legs and forced a programmer to his brow. "You're a strong one," the welder laughed as the samurai look came on his face. She drew a red stripe from his chin to his hairline. He joined the line.

Rebel's leg itched furiously. She did not move a muscle.

As the people were processed out and the courtyard emptied, those who remained grew calmer. Some even formed a sullen line, to get through the questioning more quickly.

There was a flurry of conferences, and four new jackboots entered. Three of them were permanent police, felons who'd pulled long enough terms to merit extensive training. They wore riot helmets with transparent visors, and low-mass body armor. Their insignia identified them as corporate mercenaries, rather than civil police. Two carried long staffs with complicated blades at their ends, like a cross between a pike and a brush hook.

The fourth was Maxwell.

There was no doubting it. The four passed right by Rebel's hiding place, and she got a good look at the young man. He had a stripe of killer red up the center of his face, and a glittery, unforgiving look to his eye.

"Of course I'm not mistaken," he snapped. "I heard her story myself. It's Deutsche Nakasone that's sponsoring this raid, right? Well, that's who she escaped from. How could I be mistaken?"

He led the others to his hut and watched complacently as they ripped the front wall off, sending his jewelry and clothes scattering through the court. Moving efficiently, they jammed their hooks into the rear wall and began cutting it free of the frame.

Rebel had a horrible urge to sneeze. She wanted to scream, to break and run. But that was Eucrasia's impulse, and Rebel would not give in to it. The jackboots at the gateway were processing out the last three tank towners. Their motions were quick and alert.

The thing to do was not to move.

I am old sister pike, she thought to herself. I am patience.

The rear wall went flying, and the police jabbed their poles into the vines behind it. Maxwell shouted a warning, and they ignored it. He waved his arms frantically.

And then there were cries of dismay. With an angry shrill, a swarm of honeybees rose from their broken hive.

The police fell back, swatting and cursing. At the gateway, somebody grabbed a jerrycan of water from Jonamon's hut and flung its contents at the swarm. The water broke into spheres and smashed into both bees and jackboots, doing nothing for the temper of either. The permanent jackboots retreated to the corridor, dragging Maxwell after them. One cursed him furiously.

Maxwell answered back, and was struck in the mouth.

The courtyard emptied. The jackboots pulled away from the gateway, and soon only one lingered. Go away, Rebel thought at him. But he did not. He gazed long and thoughtfully at the floating debris in the courtyard, and the occasional bee zipping angrily by. He kicked into the court, and poked his head into a hut or two.

Rebel did not move.

The man examined a vine-filled gap halfway across the court from her. Then he swam over to her patch. Rebel closed her eyes so the reflection from them would not betray her. Her skin itched.

The vines rustled slightly. "Heads up, Sunshine!"

She opened her eyes.

It was Wyeth, painted as if programmed police. Those fierce eyes laughed at her from either side of the red stripe, and he grinned comically. Then his face went grim again, and he said, "We'll have to get a move on. They're going to be back."

She climbed out of the vines. Following Wyeth's lead, she recovered her helmet and vacuum suit. Wyeth was at the gate, calling to her to

hurry, when she noticed something floating half-hidden by a sheet of tin in an obscure corner of the court. "Wait," she said. It was a body.

Rebel kicked away the tin. Old Jonamon floated there, pale and motionless, like a piece of detritus. At her touch, he opened one eye. "Careful now," he muttered.

"Jonamon, what did they do to you?"

"I've survived worse. You think maybe you could get me some water?" Wyeth silently fetched a bulb and held it to the old man's mouth. Jonamon sucked in a mouthful and coughed it out, choking. When he'd recovered, he gasped, "It's hell being old. Don't let nobody tell you different."

The old man was all tangled up in his cloak. Gently, Rebel unwrapped it. When she saw his body, she gasped, "They *beat* you!"

"Ain't the first time." Jonamon tried to laugh. "But they couldn't put their programmer on me without they beat me unconscious first." His arms moved feebly, like a baby's. "So I escaped."

Rebel wanted to cry. "Oh, Jonamon. What good did that do you? You might have been killed!"

Jonamon grinned and for a second Rebel could see the young, avaricious man of the old hologram. "At least I'd've died in a state of grace."

Wyeth drew Rebel away. "Sunshine, we don't have much time."

"I'm not leaving without Jonamon."

"Hmm." He cracked his knuckles thoughtfully, and his lips moved in silent argument with himself. "Okay, then," he said finally. "You take the one arm and I'll take the other."

They moved slowly downcorridor, the old man between them. His mouth was open and his eyes half shut with pain. He didn't try to talk. The tank towners, seeing Wyeth's jackboot paint, gave them a wide berth. "Queen Roslyn has her court down this way," Wyeth said. "She's a predatory old hag, and she stocks a lot of wetware. If anybody has a hospital going, it'll be her."

They followed a purple rope into a dark neighborhood with one brightly lit gateway. People hurried in and out of it. Rebel didn't need to be told that this was their destination.

At the gateway an angular woman with bony shoulders and small, black nipples blocked their way. "Full up! Full up!" she cried. "No room here, go someplace else." She didn't even glance at Jonamon, who was now fully unconscious.

Wordlessly, Wyeth stripped the salaries from one wrist and held them forward. The woman cocked an eye at them, then let her gaze travel to his other wrist. Wyeth frowned. "Don't get greedy, Roslyn."

"Well," Roslyn said. "I guess we could make an exception." She made the salaries disappear, and led them inside.

It was chaos in the court, with stretcher lines hung up every which way. The lines were crowded with wounded rude boys and rude girls, temporary jackboots, unpainted religious fanatics, and even one tightly bound raver. A miasma of blood droplets, trash, and bits of bandages hung in the air. But people with medical paint moved among the wounded, and their programming seemed efficient enough. Roslyn stopped one and said, "Give this guy top priority, okay? His friends are paying for it." The tech gave a tight little nod and eased Jonamon away. Roslyn smiled. "You see? Ask anyone, Roslyn gives good value. But you got to go now. I got no room for bystanders." She shooed them back.

On the way out, Rebel suddenly spotted a familiar face. She seized Wyeth's arm and pointed. "Look! Isn't that—?" Maxwell was stretched out on a line, unconscious. The red police strip was smudged on his finely chiseled face.

Roslyn saw the gesture and laughed. "Another friend of yours? You oughta maybe get some new ones who can stay out of trouble. But he's okay. Might lose a tooth. But mostly he's just got a histamine reaction from being bee-stung too often." They were at the gateway now. "Young woman brought him in. Pretty little thing." She cackled. "I think she's sweet on him."

"Oh?" Rebel said coolly. "Well, it takes all kinds, I guess."

They moved through near-empty corridors, away from the center of the tank, and away from the receding storm front. "Wyeth," Rebel said after a long silence, "Jonamon's problems are all the result of his calcium depletion, aren't they?"

Jonamon's problems are all the result of his being a stubborn old man. He'll survive this time, but it's going to kill him sooner or later."

"No, really," Rebel insisted. "I mean, like the kidney troubles, he gets them from the calcium depletion, right? You watch him for any length of time, and you see that he gets muscle cramps, his breathing gets irregular . . . So why hasn't he had that corrected?"

They were nearing the shell. The temperature was cooler here, up against the outside of the tank. Wyeth paused, took a narrow side-way, and Rebel followed. "It's not correctable. You live a year or so in weightlessness, and you reach the point of no return. It can't be reversed. Slow down, we make a turn soon."

"But it would be so simple. You could tailor a strain of coralliferous algae to live in the bloodstream. In the first phase they're free-swimming, and in the second they colonize the bone tissue. When they die, they leave behind a tiny bit of calcium."

"Coral reefs in the bones?" Wyeth sounded bemused.

"That's how we do it back home."

"You come from an interesting culture, Sunshine," Wyeth said. "You'll have to tell me all about it someday. But right now . . . here we are." The corridor they had entered was completely shuttered and lit only by nightblooms. Scattered trash gathered in long drifts unbroken by the passage of traffic. They were the only people in sight. Silently, Wyeth moved down the corridor, looking for a particular door. When he found it, he stopped and rattled a wall. "This is King Wismon's court. He's got something we need."

"What's that?"

"A bootleg airlock."

Chapter Four: LONDONGRAD

"You're too late, I'm afraid. You'll simply have to go away."

Eyes closed, King Wismon floated in the center of his court. In stark contrast to the skinny young rude boys who had ushered Rebel and Wyeth through twisty passages to the court, and who now stood guard over them, Wismon was enormously fat. His was the kind of fat that is only possible in a zero-gee environment. Even in half gravity the weight of his bloated flesh would have strained his heart, pulled his internal organs out of place, stressed muscle and bone, and threatened to collapse his lungs. His arms were unable to touch around the vast curve of his stomach, and his skin was mottled with patches of blotchy red. His crotch was buried under doughlike billows of leg and belly, rendering him an enormous, sexless sphere of flesh.

"We have to be gone before the police front comes by again!" Rebel held forward her wrists. "We can pay!"

Without opening his eyes, Wismon said, "I have been paid for use of my airlock five times today. That is enough. The lock is the basis of whatever small affluence I have—I don't want to draw attention to it. The secret of a good scam is not to get greedy."

"Hallo, Wismon," Wyeth said. "No time for an old friend?"

The fat man's eyes popped open. They were bright and glittery and dark. "Ah! Mentor! Forgive me for not recognizing you—I was asleep." He waved an ineffectual little arm at the rude boys. "Leave. This man is a brother under the skull. He won't harm me."

The rude boys backed away, suspicious but obedient. They disappeared.

For an instant Eucrasia's technical skills came back to Rebel, and in a flash of insight she read the eyes, the facial muscles, that weird, smirking grin . . . This was not a human being. This was a mind that had been

reshaped and restructured. The play of intelligence behind those dark eyes was too fast, too intuitive, too perceptive to be human. Its mental life would be a perpetual avalanche of perception and deduction that would crush a normal human persona.

Rebel realized all this in an instant, and in that same instant saw that Wismon had been studying her. Slowly, solemnly, he winked one eye. To Wyeth, he said, "For you, mentor, I'll gladly violate my own protocol. Go ahead, use the lock, I won't even charge you for it. Just leave me the woman."

Rebel stiffened.

"I doubt she'd be of any use to you," Wyeth said. His eyes were flat and intent, a killer's eyes—there was no impatience in them at all. "But even if she were, Deutsche Nakasone is after her. Do you really feel like going up against them? Eh?"

There was a dark explosion of hatred in those little eyes. "Perhaps I do." Wismon smiled gently.

"*Now wait a minute, don't I have any say—*" Rebel and Wismon said in unison. Rebel stopped. She stared at Wismon in mingled outrage and amazement.

"Don't interrupt, little sweets," Wismon said in a kindly voice. "I can read you like a book." He peered owlishly at Wyeth.

With a slight edge in his voice, Wyeth said, "Let's put it this way. Do you feel like going up against *me*?"

A long silence. Then, "No, damn it." One of Wismon's little hands reached up to scratch convulsively at the side of his neck. It left red nail tracks. Then Wismon grinned companionably and said, "You're bluffing, mentor, but I don't know about what. I never was able to read you. Go through the hutch to your left—the one with a green rag for a door. You'd oblige me by both leaving at the same time. It's a tight squeeze, but I'm sure you'll manage."

They kicked out of the airlock arm in arm. Rebel touched helmets with Wyeth. "What was that all about?"

"An old friend."

They drifted slowly toward the butt end of the Londongrad cannister. It was a great dark circle that did not seem to grow any closer. A tangle of bright machines flashed by. Behind them, the tank towns slowly shrank. "He was afraid of you."

"Well . . . I did most of his reprogramming. When you put together a new mind, it's kind of traditional for the programmer to put a Frankenstein kink in the program, just in case. Sort of a dead man's switch. So that with a prearranged signal—a word, a gesture, almost anything—the programmer can destroy the personality."

"I see." It all had a familiar ring; this was something Eucrasia had understood well. "Was that what you did?"

"Of course not. That would be immoral." They floated through unchanging vacuum for a time. Then Wyeth said, "He'd only have found it and canceled it out, anyway. This way I can keep him guessing."

Helmets touching, his face was intimately close. It filled her vision, craggy and enigmatic. Those green eyes of his sparkled. "How can you be sure he'd've found it?"

"Why not? He's smarter than I am. And I found the kink you put in me." He pulled his helmet away, and silence wrapped itself around her.

The cannister approached with extreme slowness. Rebel felt a queasiness that was like a snake uncoiling in her stomach and slithering up her spine. It curled around her head twice and constricted slightly. Eucrasia's claustrophobia. She swallowed hard. I won't give in to it, she thought. It can't break me. It can only make me stronger.

It was not an easy trip.

Not many hours later they were following a pierrot into one of Londograd's most exclusive business parks. Under the canopy of druid trees, languid paths lit by wrought-iron lampposts meandered through dark fields and small stands of trees. Fireflies drifted hypnotically through the grass. A snowy owl swooped down on them, snapped out magnificent white wings at the last possible instant, banked, and was gone. "Wyeth," Rebel asked, "why did we spend all our money on these clothes? There were cloaks that looked just as good for nowhere near as much."

"Yes, but they weren't made of real Terran wool. When you go to the rich to ask for money, you must *never* let them suspect you actually need it."

"Oh."

"Now don't talk. Remember you're painted up as a recreational slave. So don't smile, don't talk, don't show any initiative. Just tag along."

Rebel moved her crossed wrists back and forth, setting the leash connecting them to Wyeth's hand swinging. "Yeah, well, I'm not exactly thrilled about this part of the deal either."

"It gives you an excuse for following me around. More importantly, it'll confirm all of Ginneh's worst suspicions about me. She'll love it." He hesitated, looked embarrassed. "Look, if it'd be any easier on you, I could take a minute and program you up for real. It's only for an hour or so, anyway . . ."

"No goddamn way!" she said, and Wyeth nodded quickly and glanced away. Rebel's revulsion went right down to the bone, so complete she was certain it came from both of her personas. Well, that was *one* thing she had in common with Eucrasia.

The pierrot halted and, bowing, gestured to one side with a white-gloved hand. A brick walk led around a lilac bush to a simple office—a floating slab of polished wood for a desk, and two plain chairs—backed by a rock outcrop and sheltered by a Japanese maple. At their approach a small, quick woman rose. "Wyeth, dear! It's been years since I've seen you." Her skin was somewhere between amber and mahogany, her eyes midway between shrewd and cunning. She dressed corporate grey, down to the beads on her braids, and her nails were scarlet daggers. Her business paint brought up her cheekbones, played down her wide mouth. She gave Wyeth a swift hug and a peck on the cheek.

"Hallo, Ginneh."

The executive studied him. "Same old Wyeth. Taciturn as ever." Then she noticed Rebel. "Well!" Ginneh smiled, but made no further comment. She gestured Wyeth to a chair, and he dropped the leash, leaving Rebel ground-hitched.

Rebel stood by, as good as invisible, as the two exchanged pleasantries and moved on to business. Wyeth said, "I wondered if you were still providing professionals for the Outer System. Maybe the Jovian satellites?"

"You were hoping for something on Ganymede? Oh, Wyeth, I'm so sorry." She placed a small hand on his forearm. "This comes at such a bad time in our orbit. Please." A schematic phased in over her desk, showing Eros Kluster leaving the inner edge main sequence asteroid belts, heading sunward. "We're losing our competitive edge, industrially. Half the refineries are shut down. And we're not close enough to the Inner System for the mercantile economy to come up full. You know how difficult it is to find a position in a service economy. Maybe if you came back in a month. Thank you." The schematic faded away.

"Well, perhaps I will." Wyeth stood, and retrieved his leash. "Been nice chatting you up, Ginneh."

"Oh, don't rush off! Stay and talk. You haven't even asked what I'm working on. I've been transferred to the People's Mars project. You must let me show you it."

"Mars?" Wyeth frowned. "I'm not sure I'd be interested—"

"It's a lovely package! Overview, please." Holographic projections appeared behind her, like a line of windows winking open in the air. Space-jacks working on an enormous geodesic. A cluster of tank towns. Cold fusion reactors being towed slowly through the Kluster. An elaborate floating sheraton nearing completion. "The total cost is upwards of half a million man-years. It was wonderful how the whole thing just snowballed. It began with the orbital sheraton—the Stavka wanted to create a tourist industry. See the transformation storms, that sort of thing." They swiveled to look at the holos. Wyeth took a chair.

Now that their backs were turned, Rebel felt free to slouch. She scratched an itch that had been bothering her for some time. Already she felt bored and ridiculous and annoyed at Wyeth for getting her into this. People did this kind of thing for *fun*?

Ginneh and Wyeth were discussing the tank towns. "I don't understand why the Stavka would want them," Wyeth said. "Even as scrap, they can't be worth much."

"Don't be naïve, dear. People's Mars is having labor trouble. We dump a few dozen slums in their neighborhood, and the price of labor takes a nosedive."

"Hmmm." Wyeth glanced over his shoulder and frowned at Rebel's posture. She straightened involuntarily, then stuck out her tongue. He'd already turned back, though. "That puts you in something of a morally ambiguous position, doesn't it? I mean, if you squint at it just right, it looks a lot like dealing in slaves."

The executive laughed. "We're selling People's Mars the *tanks*. Whether the people living in them choose to go along or not is up to them. Oh, we're distributing the Stavka's propaganda for them, and we'll sweeten the deal by suspending rent for the duration of transit, but nobody's being forced to do anything. Next sequence, please." All the scenes changed. "This is simply a terrific deal. It's big and hot and fast. We've even had to go out-Kluster for some of the skills. Most of the muscle and skulls come from Londongrad, of course, and we're providing the slums, the sheraton, the geodesic, and the raw oxygen. But—you see that holding sphere? Closeup, if you would." A translucent sphere packed with something green and leafy and wet zoomed closer. "That contains a young air plant. We hired a team of macrobiologists from that pod of comets passing through the other side of the system to look after it."

The view switched to wraparound, and they were in the center of a small biolab. Some twenty people were at work there, dressed treehanger style, their bodies covered neck to foot in heavy clothing with embroidered inserts and oversized pockets. They talked as they worked, oblivious of their viewers, and touched each other casually, a tap on the shoulder here, a nudge in the ribs there. Somebody said something and the others laughed. Rebel wished she could join them, sign on to work among them. (But what would she do? Her skills were gone, along with most of her memories. No matter. In the largest possible sense they were all family, and she longed to be with them.)

"This is all tourist stuff, Ginneh," Wyeth said in a flat voice.

"Ah? Well, perhaps this next one will interest you. You haven't asked how we expect to transport the slums to Mars orbit without crushing everything within them."

"Is that a problem?"

"Oh my goodness, yes. Even the slightest acceleration would be enough to collapse the interiors, shanties, people and all. Didn't they teach you any physics in kindergarten? Please show us the ring."

"Well, I—" Wyeth stopped. The wraparound had switched to the interior of a floating weapons platform. It had been built cheap, all boilerplate and seam weld, but the laser sniper systems that crouched on the metal desk, gently shifting to track their targets, were bright, state-of-the-art killing machines. The human triggers floating beside them had the unblinking, fanatic look of the rigidly wetwired.

The systems were aimed through laser-neutral glass walls at individual specks moving through a cluttered floating construction site. The holo zoomed up on one speck, and it became a worker in distress orange vacuum suit. She was bolting together complex-looking machinery, hooking cables to ports, wiring terminals to terminals. Other orange-suited workers labored nearby, climbing blindly over one another as needed, yet perfectly synchronized. Tanks were mated to valves installed an instant before, complex wiring sequences were abandoned by one to be picked up by another, with never a glance to see how the others were doing. Hundreds worked in scattered clusters along the length of a half-kilometer arch of machinery, looking more like hive insects than humans. Beyond them hung more weapons platforms, enough to track each worker individually. "We brought in a team of Earth to build the transit ring," Ginneh said.

"My God," Wyeth said, horrified. "You can't deal with the Comprise."

"Don't be silly, dear. Only Earth knows how to build an accelerator ring. This deal isn't possible without help from the Comprise. Please expand from the third quadrant. You see the green tanks? Liquid helium. We've rented half the liquid helium in the Kluster for this caper."

"Let me make myself a little clearer, Ginneh. Earth and humanity are natural enemies. We're talking survival of the species here. You don't cut deals with something that threatens every human being in existence. I'm not talking abstractions here, Ginneh. I'm talking about you, me, and everyone we know—our selves, our minds, our souls, our identities. Our future."

Ginneh shrugged. "Oh, I'm sure you exaggerate. Our security is excellent. You saw the weapons platforms. If anything, we're being overcautious."

"Machines!" Wyeth snorted. "Machines are the easiest things in the universe to outwit because they're predictable—that's their function, to be predictable, to do exactly what they're designed for, time after time. And you've put them under the control of guards so tightly programmed they're almost machines themselves. Real bright, Ginneh. I ought to

strangle you and every one of your fellow corporate whores myself. It would only improve the breed."

"I suppose you could do better?"

"Damn right I could!"

"I'm glad to hear you say that," Ginneh said complacently. "Because I believe I *do* have a position for you, after all."

Rebel's nose itched. She scratched it, and the leash tapped her belly lightly. Grimacing, she pulled her hands free of the thing, and dropped it on the ground. The hell with it. She rubbed her wrists slowly and luxuriously, staring at the back of Wyeth's head with shrewd speculation. How much did she actually know about him? Very little. Enough, though, to know that he was involved hip-deep in some kind of weirdness. It certainly wasn't altruism that powered his actions. He had his own plans, whatever they were, and somehow she had been fitted into them. Logic told her it was time to cut and run. Leave him and his bitch to their little schemes.

Ginneh and Wyeth had their heads together, conferring quietly. Neither noticed her go.

The biolab had been retrofitted between two underwriting firms on Fanchurch Prospekt in midtown Londongrad. Rebel got the address from a public data port. She might not have her skills, but any working group needed someone to do the scutwork, and she could fetch and carry with the best of them. Her plan was to hide among her own kind, where she would be effectively invisible, because she wouldn't stand out. And when they left to return to their comet worlds, she'd go with them.

All it'd take was a little grit.

At the doorway she hesitated, remembering the public surveillance cameras inside. Well, there were millions such throughout the Kluster. What were the odds that somebody looking for her would be watching? Slim. Taking a deep breath, she went in.

"Hey-lo!" A lanky treehanger stuck a genecounter in his hip pocket and leered at her. Another man whistled. All activity within the lab came to a halt.

Rebel stopped in confusion. Everyone was looking at her. They were staring at her breasts and stomach, some involuntarily and with embarrassment, and others not. She fought down the urge to snap her cloak shut, and her face flushed. A short, grey-haired woman turned from a potting bench, brushing her hands together, and said mildly, "Can I help you, dearie?"

"Uh, yes, well . . . Actually, I just wanted to stop by for a chat. You see, I come from a dyson world myself." The words sounded false, and Rebel felt irrationally guilty. Sweat beaded up under her arms.

"Gone a bit native then, ain't you?" the lanky one said.

"Haven't you work to do?" the woman said in a warning voice. "All of you! What are we getting paid for, hey? Squatting in the bushlines?" Then, in a gentler tone, "Where do you hail from then?"

"Tirnannog. It's part of the original archipelago, just moving out into the Oort." The names came to her without urging, but none of them sounded familiar to her.

The other engineers were working quietly, not talking, so they could overhear what was said. Now a stocky, blond haired kid with walnut skin looked up, interested. "Oh yeah, I been there," he said. "We're all from Hibrasil, practically spitting distance, hey? Couple weeks transit in coldpack is all. Got family in Stanhix, ever heard of that? Just outside of Blisterville."

She shook her head helplessly. "Blisterville?"

"You never heard of *Blisterville*? Threetrunk past the Sargasso? Five hundred thousand people?"

A woman looked up from a tank of water voles and said, "Bet you we got one of those ravers on our hands. You know—too much electricity shot up the medulla oblongata." The treehanger beside her laughed, and punched her shoulder.

"Hey, listen, I'm not lying to you, sport! I really am from Tirnannog. I can explain—"

"Where does an airwhale fit into an ecosystem? What do they sell in Green City? Why can't an anogenic construct eat? What are the seven basic adaptations to weightlessness?" the stocky kid asked. He looked Rebel in the eye and sneered. "How many bones are in your hand?"

She didn't have the answers. It was all information that had been destroyed with her original body. She opened her mouth, but nothing came out. One of her hands was trembling.

"Freeboy," the grey-haired woman snapped, "are you going to get back to work or am I going to have to kick butt?" The boy rolled his eyes upward, but turned back to a stacked petri array. The woman said to Rebel, "We believe you, dear."

"But I really *am*—"

"I could run a blood test," Freeboy offered. "Even adapted for gravity, there's still five major differences . . ."

"What did I tell you?" the woman began ominously. But Rebel was already halfway to the door.

As she stepped outside, a man who hadn't spoken before called after her, "What do them lines on your face mean, girlie?" By his tone, she knew that he had been tasting what pleasures a wettechnic civilization had to offer, and knew exactly what her paint indicated.

She bit her lip, but did not look back.

Out on the Prospekt, the crowds swallowed her whole. There were far more people here than either uptown or downtown, and the corridors were wide, like plazas infinitely extended. Rows of palms divided the surge of people into lanes, and cartoon stars and planets hung from a high ceiling. Underfoot, the Prospekt was paved with outdated currency, silver thalers, gold kronnerrands, green ceramic rubles, all encased under diamond-hard transparent flooring. Expensively dressed people, all painted financial—cargo insurance, gas futures, bankruptcy investment—coursed over it. Rebel let the crowd carry her away, transforming her anger and humiliation and confusion into blessed anonymity.

A clown came striding toward her.

In the sea of bobbing, somber cloaks, the puffy white costume seemed to glow, as if lit from within. The pierrette smiled slightly as her eyes met Rebel's. The crowds parted for her, like waters before a religious master, and she descended upon Rebel as calm and inevitable as an angel.

Rebel stopped, and the pierrette bowed and proffered a white envelope. She took it from the gloved hand, and slid out a paper rectangle. It was a holographic advertising flat. Above it floated the same false ideal of Rebel Mudlark she had seen in downtown New High Kamden.

She looked questioningly at the pierrette, who dipped a short curtsy. She might as well try interrogating the floor. Rebel turned the paper over, and on its back was written, "Request that we talk." She crumpled the paper in her hand. The image folded into itself and was gone.

She nodded to the clown.

The pierrette led her to a nearby bank. They went to the negotiating rooms, bypassing several that were discreetly equipped for sex, and found a walnut-paneled niche with a single bench and table. Rebel sat, and the pierrette flipped on privacy screen and sound baffles. She produced a holograph generator, placed it atop the table, and curtsied away.

After a moment to compose herself, Rebel reached out to switch on the generator.

She was looking into a small hollow—obviously part of an upscale business park. At first glance Rebel thought the hollow held a drift of snow. Then she saw that she was looking down on an oval of white tiles. The only spot of color in all that white was a red prayer rug at its center. A lone figure knelt there, hood down, shaven head bowed.

"Snow!" Rebel exclaimed. The image panned downslope.

The figure raised its head, studied her with cold, reptilian eyes. Skin white as marble, face painted in the hexangular lines of ice crystals or starbursts. He cocked his head slightly, listening. "In a sense," he said

at last, "perhaps I am. Snow and I are both part of the same thing." His face was every bit as gaunt and fleshless as Snow's had been. "I have a message for you."

"What are you?" she asked. "Just exactly what are you that you and Snow are part of the same thing?"

He made a small sideways jerk of his head, a gesture perhaps of annoyance. Or maybe he was just accessing data through some new channel. "Irrelevant. I am not required to give you any information other than the message. If you choose not to receive it—" He shrugged.

"All right. I'm listening."

The man looked directly at her. "Deutsche Nakasone has licensed a team of dedicated assassins to your case."

"No," Rebel said. Without thinking about it, she clenched her fists so tight the nails dug into her hands. The skin over her knuckles hurt. "That's ridiculous. Deutsche Nakasone wants my persona. They need me alive."

"Not necessarily." A bony hand slid from his cloak to stab the empty air, and an appliance with smooth, cherry-red finish appeared on insert. "The assassins are equipped with cryonic transport devices. They need only kill you, flash-freeze your brain, and let their technicians dig out the desired information using destructive techniques." The hand disappeared into his cloak. "That's what they should have done originally. But they also wanted to salvage you as a petty officer of the corporation. Now, however, you've been written off."

The machine was slick and featureless on the outside, with a pop-up handle on the top. It was just the right size to hold Rebel's head. She hunched her shoulders, and brought up her hands. "Why are you telling me this?"

"You are not ready to deal yet." The man stood suddenly, strode three paces to one side, stopped. "Very well. We wish to keep you alive until you are ready. You must take this threat seriously." He paused to examine something Rebel could not see. "You've been careless. You should have realized there are few enough groups of dyson worlders in the Kluster that they all would be watched. If we hadn't reached you first, you'd be dead now."

The scene shifted and she was looking down on Fanchurch Prospekt. From above, the jostling zombies blended together like a sluggish flow of mud. Bright circles appeared around three faces, and she saw that they were moving through the crowd in formation, searching among the faces for something. One by one, the image zoomed up on them: A heavy woman with fanatically set face and a black slash across her left eye. An unblinking sylph of a girl with a black slash across her left eye. And

then a third with that same paint, a red-haired man with a face like a fox.

Jerzy Heisen.

"You know him?" the man asked. The assassins passed by the doors of the bank Rebel was in. Each carried a cherry red cryogenic storage device in one hand. "Why did you start like that if you didn't know him?"

"He used to work with Snow."

"Ah." The man made a small gesture, cocked his head. "Interesting." The crowd scene faded. "Of course. He's clever, he's serving time, and he's actually met you. Of course he'd be one of your assassins." Again he paused. "No matter. We have generated a chart of those places in the system you can flee to, and with them the probabilities of your being assassinated by Deutsche Nakasone within a Greenwich month of arrival. I suggest you study it carefully."

The chart scrolled up.

LOCATION	PROBABILITY OF ASSASSINATION (+/- 1%)
EROS KLUSTER	97%
PALLAS KLUSTER	95%
OTHER KLUSTERS (WITHIN BELTS)	91% (range 88-93%)
TROJAN KLUSTERS	90%
LUNAR HOLDINGS	90%
MERCURY SCIENCE PRESERVE	90%
NEPTUNE/PLUTO SCIENCE PRESERVES	90%
JOVIAN SYSTEM:	70%
NONGALLILEAN SATELLITES	89%
GANYMEDE (PORTED CITIES)	65%
(WILDERNESS)	44%
CALLISTO (PORTED CITIES)	65%
(WILDERNESS)	41%
IO, EUROPA, AMALTHEA, JUPITER ORBITAL	65% (range 63-68%)
MARS ORBITAL, DEIMOS	63%
MARS SURFACE	59%
SATURNIAN SYSTEM:	58%
LESSER SATELLITES	75% (range 74-75%)
RINGS, SATURN ORBITAL	72%
TITAN (PORTED CITIES)	30%
(WILDERNESS)	23%
EARTH ORBITAL	17%
EARTH SURFACE	0%

"Very cute," Rebel said. The list brought back some of the spirit the last half hour had kicked out of her. "I especially like that last bit. I guess I should just hop the first transit to Earth, huh? Or maybe I should just walk out an airlock without a suit. Then I could swim there."

Her sarcasm had no visible effect. "We won't advise you what to do. We only reassure you that within the limits of game theory this chart is reliable." The man knelt, raising his hood. The chart faded and the pierrette reappeared at Rebel's side.

"One more thing. You have a new friend. The tetrad."

"Yes?"

"Don't trust him."

The leash was waiting for her. Wyeth and Ginneh still had their heads together in conference, apparently oblivious to her absence this past hour. The same views of weapons platforms and of the Comprise assembling machinery hung in the air beyond the desk. The crescent fraction of the transit ring was a shade longer than it had been. Rebel sighed, and slipped the leash back on her wrists.

There was noplac she could go that was not dangerous, and no one she dared trust. She had to play hunches. And so far the only testimonial for any direction of action was that Snow's whatever-he-was distrusted Wyeth.

"Well," Ginneh said. "Will you take the position?"

Wyeth glanced over his shoulder at Rebel, and for a flicker she thought he looked surprised to see her. Then she was not sure. "Ginneh, you knew I'd take it when you first brought it up. Let's not kid each other."

Ginneh's laugh was light and gracious. "Well, that's true, darling, but I'd rather hoped to spare your ego that realization."

"Mmmm." Wyeth stood and took up the leash. "Consider me on the payroll, then." He led Rebel away.

Not far from the park, they climbed a winding set of wooden stairs high up a druid tree to a platform restaurant built out onto the branches, where they ordered puff pastries and green wine. The glasses had wide bowls and tiny lips. Wyeth frowned down on his and capped it with his thumb. He slowly swirled the green liquid around and around. Rebel waited.

Wyeth looked up suddenly. "Where were you?"

"What's it worth to you?"

Hands closed around the wine glass. They were big hands, with knobby joints and short, blunt fingers. A strangler's hands. "What do you want?"

"The truth." And then when he raised an eyebrow, she amended it to, "Truthful answers to as many questions as I ask you."

A moment's silence. Then he rapped his knuckles on the table, and touched them to his brow and lips. "Done. You go first."

Slowly, carefully, she recounted the past hour. She felt good up here among the leaves, where the light was green and watery and the gravity was slight. She felt like she could lean back in her chair and just float away . . . out of the chair, out of the restaurant, beyond the branches, into the great dark oceans of air where whales and porpoises sported, and the clouds of dust algae blocked out the light from the distant trees. It felt like home, and she stretched out her story through three glasses of wine.

As she talked, Wyeth's face remained stiff. He hardly even blinked. And when she was done, he said, "I cannot for the life of me understand how any one human being can be so stupid!"

"Hey," Rebel said defensively. "It's your own fault I don't have the faintest idea what you're up to. If anyone here was stupid, it was you."

"Who do you think I was talking about?" he said angrily. "I was just too clever for my own good. While I was building an elaborate trap for Snow and her ilk, they walk up and have a long chat with you! One perfectly beautiful opportunity blown all to hell because I—well, never mind." He took a deep breath and then—like a conjurer's trick—he was instantly smiling and impish. "Go ahead, ask your questions. You want me to start by explaining Snow?"

"No. Well, yeah, but later on. I was to start with something very basic. You're not really human, are you? You're a new mind."

He grinned. "Who should know better?"

"Please. You already hinted that I did the programming on you. But I don't remember a damned thing, so don't get all coy on me, okay? Give me a straight answer. Just what the fuck *is* a tetrad?"

"A tetrad is a single human mind with four distinct personalities." His face changed expression, to serious, then distracted, then open, and finally mischievous. "That's what we am. Or should I say, that's what I are?"

Chapter Five: PEOPLE'S SHERATON

"You're in for something that's pretty rare this far from a planetary surface," Wyeth said.

"What's that?"

"A windstorm."

Beneath its elaborations—balconies, outcroppings, light and heavy gravity wings, bubbles, and skywalks—the sheraton was a simple orbital wheel, with three floors moving at slightly different speeds to maintain

Greenwich normal gravity. Wyeth had set up security headquarters in the lobby at the foot of the elevator from the central docking ring. He sat behind the front desk, eyes moving restlessly as he scanned a dozen holographic inputs. A tone-controlled mike rested before him, and he murmured instructions into it from time to time, pitching his voice for the channel desired.

Rebel sat in a sling chair, staring out through the window wall. The stars trembled with the flicker of subliminal memories. She could see Wyeth reflected on the inner surface of the glass.

There was a cascade of movement across the window. "We've secured the locks, sir. The people aren't very happy about it. Minor violence at tanks twelve and three." Despite her samurai paint, the woman hardly looked like security. She'd been recruited from the tanks, and wore a daisy yellow cloak and far too much jewelry.

"They were notified," Wyeth said. When the woman was gone, he sighed. "I wonder at people. If they don't understand why they can't use the locks for an hour or two, then what do they think is waiting for them when we reach Mars orbit? I'm afraid they're in for a rude awakening."

Spacejacks were bolting the preassembled segments of the geodesic around the sheraton and tanks, working with programmed efficiency. The structure was covered with transparent monomolecular skin. From Rebel's chair, it looked like a faint haze gathering across the stars. The workers began spraying powdered steel over the completed exterior, vacuum welding layer upon layer. Now it was like watching the heat death of the universe, the stars slowly clouding up and fading to black. Gloom swelled and overwhelmed everything. Finally the only light within the geodesic was what spilled from the windows of the sheraton.

"This is spooky," Rebel said. Suddenly she had an overwhelming sense of someone standing at her shoulder. She whirled, and no one was there.

"You like it, huh?" Wyeth threw an exterior camera projection onto one quadrant of window. From outside, the geodesic looked like a gigantic ball bearing, dazzlingly bright in the raw sunlight. Stars rippled over its flank. Just off center was the distorted reflection of Londongrad, with the Kluster corporate logo (two classical figures, one bending) super-painted on its side. In an unfamiliar voice Wyeth said, "Think of it as an enormous cell. The tank towns at the center are the nucleus. The sheraton is . . . oh, the centrosome, I guess. The air plant would have to be the mitochondria." He laughed and spread his arms. "And behold! a new form of life floats upon the winds of space. What vast, unimaginably complex creatures will evolve from this first simple cell, a million years hence?"

Rebel looked up sharply. "Which one of you is that?"

Again that strange laugh. "The pattern-maker, I guess you'd call me.

I'm the intuitive one, the persona that guesses at the big picture, that decides what we think about God and infinity. Of course, it's only a name. In an Aboriginal hunting party, I'd be the shaman."

"Hah?"

"Don't you know where the tetrad comes from? Eucrasia patterned us after the ancient Aboriginal hunting party. They went out in groups of four, and no matter what individuals they picked, during the hunt they took on four distinct roles—the leader, the warrior, the mystic, the clown. It made for a remarkably stable and efficient group. And it makes for a remarkably stable and efficient mind."

This was all very familiar. Staring out into the darkness, Rebel saw half-formed memories of Eucrasia's past striving to take shape. "I thought she was a persona bum?"

"Well, a little bit of a persona bum, yeah. But a hell of a good wet-surgeon in your own right."

"In *her* own right."

"Whatever." As they talked, Wyeth occasionally turned away to touch an unseen control, or murmur an order. People continually passed through the lobby. A squad of security samurai took the elevator up to the docking ring, armed with truncheons and barbed pikes, and looking dangerous. In their wake, a young kid with mahogany skin strode in. He stood at the window, hands behind back, peering out with elaborate interest.

"What are you doing here?" Rebel asked coldly.

"Hey, I got experience in security work." Maxwell put a hand on her shoulder and she stood, knocking it away.

Without looking up, Wyeth said, "He's a messenger. I need any number of runners who can take messages in and out of the tanks."

"He's not painted as a messenger."

"Yes, well, we're dealing with the Comprise here. The less programming the better."

On the window flashed images of cold fusion alembics being hooked into the geodesic and powered on. Newly created oxygen, nitrogen, carbon dioxide, and trace gases gushed into the sphere. The sherton shuddered as the winds hit, and Wyeth lost two limpet cameras, their perches torn out from under their grips. They went hurtling helplessly away, one to shatter against the tanks, the other against the geodesic's inside wall.

A short, grey-haired woman dressed treehanger style walked up to the front desk. "Got all my people at their stations. What do you need us to do when?" It was the comet-worlder from the biolab on Fanchurch Prospekt.

"Oh Christ," Rebel muttered. "It's old home week."

The woman peered at her. "Don't I know you, dear?"

Rebel turned away and Wyeth said, "Rebel Elizabeth Mudlark, I'd like you to meet Constance Frog Moorfields, our macrobioengineering project director. Connie, I'm going to need you to cue your people in just a few minutes. Grab a channel, will you?"

"Oh yes, certainly." Constance peered owlishly at the controls. "How do I work this thing?"

Maxwell slid an arm around Rebel's waist and said, "Tell you what, why don't you sit on my lap, and we'll talk about the first thing to come up?" She threw a punch at his stomach, and he danced back, grinning.

Outside, the storm howled. "Now," Wyeth said, and Constance nodded and murmured into her mike. In some distant room the macrobioengineers hit their remotes. Explosive bolts broke open the small holding sphere, sending the pieces flying. The air plant within twisted and expanded, lashing through the air. The winds took it in their teeth, and strands slammed against the tanks and the geodesic walls, rebounding furiously. Through the windows, Rebel saw huge loops of the plant loom into the dim light from the sheraton and recede again. "It's enormous," she marveled.

"Twenty-seven miles," Constance said with satisfaction. "Stretched out full, that is. And it's still young. Ought to grow like green hell in the next few days." She reached over to the controls and threw several biostructural schematics on the windows. "See, we've designed it to—"

Rebel turned and walked away.

The hallway was long and straight, with a barely perceptible upward curve. Rebel wondered why it was so dark, shadows lapping up against her ankles, and hovering over either shoulder. Must be some reason. She touched one paisley wall, and remembered another, similar hallway she had walked down a thousand times before, the one connecting her office with the wetsurgery.

A breeze stirred her cloak, and she drew it together slightly. A scrap of paper fluttered by, and behind her she heard a silver bowl crash to the floor and go tumbling end over end before hitting a wall. Somewhere, the off-program samurai were opening the airlocks, glorying in the rush of new air. Outside, the wind sang in demon chorus. Within, all was cool gush and flow.

She was striding along, lost in her memories, when Jerzy Heisen stepped from a conversation niche and took her arm. "Hello, Heisen," she said absently. "Anything new on the Mudlark program?"

He gave her a peculiar look. "Not yet. Soon, I hope."

"I've decided to try the program on myself. It looks interesting, but the kind of interesting that's only comprehensible from the inside, if you get me. I don't want that information filtered through some subliterate, only marginally coherent persona bum." She couldn't keep a touch of

bitterness from her voice. The support staff she'd been given was poor material, incompetent to begin with, and hastily programmed on top of that. She had to do half their work herself.

Heisen frowned, then said carefully, as if reciting lines from a play or remembering the exact wording of an old conversation, "Is that wise? We haven't had the master wafer duplicated yet."

She brushed his objection aside scornfully. "It's only for ten minutes. God's sake, what can happen in ten minutes?"

A pause. When she looked directly at him, Heisen's eyes were oddly intent, but the instant she looked away he faded to a vague presence again. "You think it's a commercial persona, then?"

"You're so damned mercenary, Heisen! I'm talking about a new trait, a new characteristic, a new property . . . Something that might make programming richer and more interesting."

"But it *does* have commercial potential?"

"Oh, I suppose so."

Footsteps came running up from behind, and suddenly a dark-skinned kid was standing before her, proffering a cheap amalgam ring. Eucrasia had to squint to see him. "Wyeth told me to give this to you."

"Wyeth?" She recognized the name. How could she forget? He was the best work she'd done yet—pirate surgery, of course, but she'd put everything she had into it, because some of the most interesting programming was, strictly speaking, illegal. "Wyeth asked you to give me a ring?"

"Yeah, it's a locator ring. So he can keep track of you, where you are and so on." He waved a hand at the ceiling cameras. "Listen, you come over to the tanks later on, visit my hut. No surveillance there. We can get private, know what I mean?"

Eucrasia shrugged in baffled annoyance.

Heisen had withdrawn to a discreet distance. The kid glanced curiously at him, decided he wasn't important, and blew her a kiss. "See you in my hutch!" he called over his shoulder. Eucrasia vaguely wondered who he was.

Heisen took her arm again. He steered her through a meadowlike meeting room. The grass was cool underfoot, and bees hovered drowsily over the raspberry bushes. "Let's go over this way, and stroll through the skywalk. It's a very pleasant walk. Free of cameras and prying eyes."

He swung the cherry-red case lightly back and forth as he led her away.

The skywalk looped out from the sheraton in a long, graceful curve. Fish swam through strands of kelp within the transparent tube walls. The teak boardwalk sounded almost musically underfoot. "I designed Wyeth's warrior aspect after my father," Eucrasia said. She had totally

lost track of who she was talking to, but the memories were compulsively strong, and they drove the words before them. "He was a willful man, my father was. Determined. Nobody could talk him into anything, not unless he wanted them to. But he wasn't . . . flexible, you know? He couldn't adapt to change. He couldn't show emotion. But underneath he was a wonderful man, very kind, and I loved him. When I was a girl I was always wishing I could change him. Not in any big way, but in little ways, so he could get past all that defensive armor and breathe a little. So he could enjoy his life. That was a big factor in my choice-of career, I think."

She fell silent. Remembering when she was a little girl and the Kluster was passing out of the belts. The refineries were closing, which had put both her parents out of work. Those had been bad times. Her mother'd taken a job as pierrette, and the wetware was primitive then. She'd come home after shift with a goony look to her, and a subservience that took hours to wear off. Daddy had hated that.

Once Eucrasia came home from nurture to find her father sitting at the center room table, turning a wetcartridge over and over in his hands. It was a big, bulky thing in a black case, almost obsolete already, and she didn't know yet that it was loaded with electronic godhood. But she knew that she was tired of having her father around all the time, moping about gloomily, and of almost never seeing her mother the way she used to be. And she didn't like the guilty, weak look that melted her father's face when he saw her. He had always been a *strong* man. So it was involuntary how, as he fumblingly tried to hide the cartridge, she stared up at him, mind superchilled and pulsing with inarticulate pain, and felt the anger sear through her eyes like an invisible psychic laser, and said, "I hate you, Daddy."

What happened then shocked her.

Her father's hand clenched into a fist. It trembled. Then—so fast she almost didn't see it happen—he hit himself right in the middle of his face. That big fist struck hard. It must have hurt like hell. It broke the cartilage in his nose, and blood flowed down. Then he hit himself again. And again, with less hesitation this time, as if he'd savored the experience and decided he liked it. At first the only sound was of fist striking flesh, but then gradually he began gasping, a wet noise like sobbing. Still he kept on hitting himself.

Eucrasia had rushed forward, grabbing at that huge, muscular arm, trying to stop him. "Daddy, no!" she shrieked, and somehow—it was like a small, dark miracle—he'd stopped.

For a long moment he just stood there, chest working, shoulders heaving. His face was all dark with blood. One red drop fell on Eucrasia's foot, tickling her little toe. Her father stared around and around him,

as if wondering where he was. Then his eyes fixed on Eucrasia and they both stood there, mouths open and silent, unblinking, looking at one another.

Then he turned away.

"This is far enough," Heisen said. He stopped and put down his case with a heavy thump. "Why don't you sit down, Eucrasia?"

They had come to a transparent bar built out from the wall of the skywalk. An octopus was searching for food down by the floor, pulling himself along the glass with graceful swirls of his tentacles. Eucrasia sat on one of the stools. "He was a good man," she said. "He was a good man. He didn't deserve for that to happen."

"This will only take an instant."

Eucrasia stared out into the darkness. There were a few vague patches of luminosity in the distance, but nothing more. Where were the stars? she wondered. Tiny wheatseed lights edged the boards underfoot and ran along the rim of the bar, but outside all was Stygian gloom. She felt like she'd been caught in an afterworld where things struggled to take form from nothingness, and failed.

Heisen lifted the headfreezer above her. One of his elbows touched her shoulderblade.

Startled by some movement below, the octopus exploded in Eucrasia's face. One instant she was staring out into featureless black, and the next she confronted a pale, distorted shape that had leaped before her. A reflexive startlement keyed subliminal memories of empty eye sockets, a mouth that was a gaping scream. Simultaneously her claustrophobia gripped her and she realized that somebody was standing at her shoulder, about to put a box over her head.

Eucrasia screamed and lurched to the side. Rebel fell off the stool, one edge of Heisen's cryonic device smashing against her shoulder, and then she slammed to the floor. In a white burst of pain she rolled away and tumbled to her feet. Heisen lifted the thing again. "Get away from me!" Rebel cried.

"Now, Eucrasia," Heisen said. He made soothing, hushing noises. But his eyes were calm and cold and they did not look away from her for an instant. He advanced a step, and she backed away. There was nothing but skywalk behind her—at least an eighth of a mile of tubing without branching or exit.

"Listen, Jerzy, I don't know how you got in here, but Wyeth's going to notice I'm missing soon. This place is crawling with samurai—there's no way you can get out without being caught."

Heisen stepped back a few paces so he could set the cryonics device on the bartop. He reached into his cloak and removed a case from a liner pocket. Without looking down, he flipped it open.

"Jerzy? *Listen* to me, will you? I'm sure you can be reprogrammed. You can have a normal life again. Answer to nobody but yourself." He slipped his hand through the hilt of a fat-bladed dueling knife. It was the kind rude boys favored, a cross between stabbing blade and brass knuckles, because it was almost impossible to lose one's grip on it in a fight.

Now Heisen smiled calmly and took a swipe at her.

"Oh shit!" Rebel danced back. Grabbing the loose end of her cloak, she whipped it about one forearm. Now she had a shield of sorts. In a giddy, crazily gleeful corner of her mind, she felt like a Renaissance dandy. This was how they had fought in Spain, in Rome, in Greece, all those centuries ago, in desperate backalley scuffles.

Of course, *they'd* had weapons of their own.

Heisen advanced slowly; even with the advantage, he was programmed to be a cautious fighter. He fainted twice, stabbing at her face and then her belly, and watched how her arm jerked forward to protect them. Where Heisen's movements were all smooth, controlled menace, Rebel's reflexes were made rough and nervous by the jagged edge of fear. It coursed through her veins, danced behind her eyes, and tasted sour in her mouth. She was defeated already.

Heisen's smile faded and for an instant he was perfectly still. Then he lunged forward, feinting left to draw away her arm, then slashing downward at the exposed side of her throat.

Rebel leaped away, crashing sideways into the wall. The hot acid edge of the knife drifted across her side, barely breaking the skin, searing the finest possible line over her ribs. Rebel pushed away from the wall, her entire side ablaze with pain, and stumbled backwards. Heisen glided forward, his eyes deathly calm.

Something hard slammed Rebel in the back. The edge of the bar. Perfect, she thought. One corner in the entire damned skywalk and I back myself into it. Something smooth and metallic and chill touched her back ever so gently.

The headfreezer.

In one swift motion she snagged the thing from behind her and thrust it at Heisen, gripping the handle in both hands. He fell back a pace.

The problem was that it was not easy to hold the freezing unit up before her. It was heavy, and her arms trembled. It was too short, too blunt, too clumsy. If Heisen weren't so damned quick, she'd be tempted to just drop it on his foot. Under one finger she could feel a trigger built into the handle. Which meant that if she could convince him to stick his hand inside the device, she could take him. Otherwise, it made a lousy weapon.

I'll have to throw it at him, Rebel thought. Swing it up, catch him under the jaw, break a few teeth. Then grab the knife and hold him for





the security people. That was a good plan. It ranked right up there with suddenly learning how to teleport.

She could see Heisen's muscles tensing. His face went very calm.

All in a flurry, he drove the knife up in a killer stab, she swung the case toward it, and there was a shout from behind Rebel. Reflexively, Heisen's eyes flicked up, past her shoulder, to assess the intruder. In that second's inattention, Rebel thrust the headfreezer forward, shoving it over the extended knife and hand. She hit the trigger. The unit grunted, an almost-silent mechanical cough.

For a long instant neither Rebel nor Heisen moved. Then Rebel jerked back the case. Its exterior was hot with transferred energy, and painful to the touch. Heisen looked down. Gingerly, wonderingly, he reached out to touch his knife hand.

It shattered.

Both knife and hand fell to the deck and broke into fragments, leaving behind an arm that simply stopped halfway between elbow and wrist. Rebel's fingers felt weak. She dropped the headfreezer. She couldn't stop staring at the amputated arm; it seemed to glow and swell, filling her vision. Behind her came the staccato sound of running feet.

Heisen came to himself then. Showing no sign of pain, he reached with his surviving hand into his cloak and removed a small black ball. "Stand clear," he gravely advised, and threw the ball at a distant stretch of wall.

The samurai were drawing near when the wall exploded, bursting outward in a shaped gush of water and glass. One seized Rebel and pulled her back, while the other leaned forward, trying to snag Heisen with her pike. But Heisen was already leaping through the new opening. He fell out and away. Wind screamed, and some of the gushing water was thrown back in their faces. The air reeked of salt, and wet strands of kelp were everywhere. To either side of the walk, heavy safety doors slammed shut.

Rebel got one glimpse of Heisen tumbling, his cloak flapping wildly, before the darkness swallowed him.

"What a mess!" a samurai said. He kicked at a flopping fish. Wind lashed his hair.

It was all Rebel could do to keep from crying as the samurai led her away.

On the graphics window, a glittery wedding band of machinery was afloat in the vacuum. Hundreds of the Comprise crawled about its surface, anchoring and adjusting small compressed gas jets. Painstakingly they guided the ring with a thousand tiny puffs of gas, until the geodesic hung motionless at its precise center. Only now did Rebel get any feel for the ring's size—miles across, so large that the most distant parts seemed to dwindle to nothing.

"That's not good enough," Wyeth said. "I want *all* those rooms secured, and I want it now. Understand?" He looked up as Rebel entered the lobby and gave her a wink. Then, pitching his voice differently, "Do you have the broomsticks out yet? The winds are dying down, let's see some action."

The lobby was aswirl with samurai, patrols scurrying purposefully in all directions. "I was almost killed," Rebel said. "Just a minute ago."

"Yes, I know. When you got lost I sent some limpets around the outside of the sheraton. Caught the last few minutes of your confrontation. That should never have happened. As soon as I get things squared away, heads will roll. There's no excuse for that kind of security foulup."

Red warning lights blinked on across the length of the transit ring. As one, the Comprise kicked free of the machinery, leaping inward in acrobatic unison, like a swirl of orange flower blossoms seen through a kaleidoscope. By tens and scores they linked hands and were snagged by swooping jitneys. Wandering up out of nowhere, hands deep in pockets, Constance said, "That's really quite lovely. It's like a dance."

Wyeth didn't look up. "Not quite so lovely when you consider *why* they're so perfectly coordinated."

She blinked. "Oh, quite the contrary. When you think of the complex shapes their thoughts take, the mental structures too wide and large to be held by any one mind . . . well, that's cause for humility, isn't it?" Then, when Wyeth said nothing, "The Comprise is a full evolutionary step up on us, biologically speaking. It's like . . . a hive organism, you see? Like the Portuguese man-of-war, where hundreds of minute organisms go into making up one large creature several orders of magnitude more highly structured than any of its components."

"I'd say they were an evolutionary step down. Where human thought creates at least one personality per body, the Comprise has subsumed all its personalities into one self. On Earth, some four billion individuals have been sacrificed to make way for one large, nebulous mind. That's not enrichment, it's impoverishment. It's the single greatest act of destruction in human history."

"But can't you see the beauty of that mind? Gigantic, immensely complex, almost godlike?"

"I see the entire population of mankind's home planet reduced to the status of a swarm of bees. A very large swarm of bees, I'll grant you, but insects nevertheless."

"I don't agree."

"So I see," Wyeth said coldly. "I will keep that in mind, madam." The running lights on the transit ring were blinking in rapid unison. To Rebel he said, "See that? They've armed their explosives."

Constance looked confused. "What's that? Explosives? What in life for?"

The jitneys slowly converged on the geodesic. Ahead of them a gang of spacejacks was fitting an airlock. They welded it through the metal skin, yanking open the exterior iris just as the first transport drifted up. Then they popped the jitney's drive and replaced it with a compressed air jet system. "They're about to enter the geodesic, sir," a samurai said.

"God help you if a single one of the Comprise isn't accounted for when they reach the sheraton," Wyeth said darkly. Then, to Constance, "The Comprise doesn't want us snooping through their technology, Ms. Moorfields. So of course they'll have programmed the ring to self-destruct if we try anything. And since they have, and since the helium in the ring is only rented, we won't."

The jitney eased into the interior atmosphere. It was crammed full and covered over with orange suited Comprise; they clung three deep to its outside. The pilot hit the jets and it moved toward the sheraton.

"I don't understand this mutual suspicion," Constance said. "So mankind has split into two species. Give us time and there'll be a dozen, a hundred, a thousand! Space is big enough for everyone, I should think, Mr. Wyeth."

"Is it?" The jitney glided toward the hotel's docking ring. The winds had almost died now, save for those generated by the spinning of the sheraton itself, and by its own rotation-preservation jets. Still, the compressed air guidance retrofit had been a clumsy one, and the jitney lurched as its pilot overcorrected for yaw. The huddled Comprise grabbed for one another and hung on—all but one, who lost grip and went sailing away. For an instant the unit peacefully glided, and then it jerked violently. Bits of helmet exploded away from its head. Again the corpse jerked, and again. Some half dozen samurai on pressurized broomsticks closed in on it.

"See those weapons they're holding?" Wyeth asked. "Air rifles. I had them machined in the tanks; the things are illegal in the Kluster. But I needed them. The geodesic's too thin for lased weapons, and blades just aren't fast enough."

"You *killed* that man!" Constance cried.

"We're not playing games here." The corpse was being towed away. "I assure you, my reasons were good."

"That's what Heisen would have said," Rebel muttered. Wyeth looked up sharply, and then the elevator doors opened and the first cluster of twenty Comprise were ushered in. Their skins were dyed to match their orange suits; it would be hard to lose one in a crowd. But what struck Rebel was not their garish color, or the single long braid that all, men and women, wore, but the fact that each face was different. She hadn't expected that. For all that they thought, lived and moved alike, and were all part of a larger mind, each had the face of an individual human being.

Somehow that made the horror of it all that much more.

The group passed through single-file, some with eyes closed, others peering about with interest. Their radio communication implants were invisible, placed deep within their bodies for safety. The leader broke rank and strode toward Wyeth. Two samurai fell into step to either side of her.

Wyeth looked up, waited. "We will need exercise areas, to keep these bodies in shape," the woman said. "Also, the metal in this structure acts as a weak Faraday cage. We require that triaxial cable with local rec-tenna lead-ins be laid through all living areas." Wyeth nodded. "Also, we have lost one of our bodies. Your security forces killed it."

"So?"

"Earth assumes that the charge for consumables will be reduced by an appropriate fraction of a percent," she said. "Since it will not be able to consume them."

"I'll see to it."

The woman joined the rear of her line. As the first group disappeared, the elevator doors opened and the next twenty were ushered through. Wyeth smiled sourly. "Wonderful stuff, eh? The Kluster is so hot to be rid of this crew that they stuff 'em right within striking distance of twenty-some tank towns. Let fifty of *these* characters into the tanks, and an army couldn't dig them out. Within a month they'd have everyone in the tanks subsumed into their group mind."

"That is sheer prejudice," Constance said. "Earth is just another form that human intelligence can take. You're acting as if it were an enemy."

"It is an enemy, Ms. Moorfields. It's the worst enemy the human race has, with the possible exception of the kind of stupidity that lets us think we can deal with Earth without getting burned. And the only thing we've got going for us here is me. I'll see them all dead and in Hell before I let a single one loose."

Outraged, Constance spun about and left. Wyeth put his hands on the edge of his desk and, stiff-armed, leaned forward. He stared at the Comprise filing by, his eyes two hot coals.

Rebel shivered.

For a long hour the Comprise passed through the lobby under deferential guard. Technically they were guests, since they were paying for transit to Mars orbit. So for all their blades, pikes, and singlesticks, the samurai guided their five hundred charges with smiles and bows. The Comprise, of course, displayed neither approval nor displeasure.

More running lights had come on across the transit ring, first yellow and then orange. "How does that thing work?" Rebel asked.

Wyeth shrugged. "I know diddly-squat about physics to begin with.

And of course no one understands Earth's brand of physics; they're centuries ahead of us. You could program me up to be another Miiko Ben-Yusuf, and I couldn't explain how that thing works." Then his face warped into a mischievous smile as his aspect changed. "I can give you the lecture for idiots, though. The way it was told to me, what the ring does is to take the space lying within it and accelerate that space. It actually moves space *through* space, and those things lying within that space remain embedded in that space and go along for the ride. So we're here and here we stay, only 'here' moves. The effect is instant speed. Velocity without acceleration. So you don't have all the problems of inertia. Get it?"

"Uh . . . no, not actually."

"Well, neither do I." He laughed and then the ring's running lights turned green. "Whoops. Here we go."

Involuntarily, Rebel gripped the edge of the desk. Onscreen, the transit ring, along with Londongrad, New High Kamden, the asteroid, and all other artifacts of the Kluster—vanished. It was as if they had been wiped from the wall, leaving behind only the unchanging stars. "Was that it?" Rebel asked.

"Not much to look at, eh?"

"What happens to the transit ring now? Does the Kluster get to keep it?"

"They wish! No, what happens now is that it'll dismantle itself. Then Kluster security will analyze the pieces and try to figure out how they all fit together, and of course they'll fail. The Comprise is very good at cybersystems." He glanced down at the inputs, and his expression changed. "Look. I've got a lot of work to do right now. Why don't you check out your room, get some food, maybe catch a little sleep. Tomorrow morning, we can plan strategy, okay?"

"Okay." She started toward the elevator, then paused. "Wyeth? Were you worried when you saw Heisen trying to kill me?"

"Not really. I had samurai in the area. Why?"

"Oh, nothing."

The upper ring, where Rebel's room was, was filled with off-program samurai, pierrots and pierrettes, and other service types. They were in a holiday mood, plucking fruit from the ornamental trees, laughing and splashing in the fountains. Paint was beginning to smear already. Somebody had broken open a crate of paper birds and the air was filled with white flapping devices, flying in slow circles as their elastic bands unwound. Rebel strode through the revelers, full of melancholy energy, and this time she didn't object when Maxwell slipped an arm around her waist, and matched strides with her. "I hear they're forming up an orgy in the water lily pond," he said. "What do you say?"

"Too many people for me. I'm going to my room." Then knowing already that it was a bad idea, but running a little short on good ones, she said, "Care to come along?"

The room was a standard luxury oval, with an off-center bed and programmable walls and ceiling. They stripped and tumbled onto the orange and red bear paw quilt, throwing their cloaks over the room monitor. Then, while Rebel instructed the walls to display a realtime exterior starscape, Maxwell wound all the birds tight and released them one by one.

The quilted bed floated among the stars, paper birds whirring quietly overhead, as they made love. At first Rebel sat atop Maxwell and did all the work, slapping his hands away whenever he reached for her. Then, when he was good and hot, she lowered herself onto him, and he seized her roughly and rolled over on top of her. He thrust away like some kind of machine, an untiring organic sex robot. She turned her head to the side, staring off into the infinity of tiny colored stars that was the Milky Way.

Gravity sex was nice. You didn't have to keep track of where you were, constantly shifting handholds; half the work was done for you. Then too, there was that good, solid weight atop her. It had a satisfying feel.

She was moving through passion now to a far, detached calm, a lofty mental landscape where her thoughts were wordless and as crystalline clear as cold mountain air. Here, where her body's sensations were a pleasant background murmur, she felt at peace with herself. She felt simple and uncomplicated. It was easy to look within herself and search out the nameless discontent that had been gnawing at her for some time, the hidden poison that she could not isolate in the crowded babble of normal thought.

Everybody wanted something from her. That was a part of it. Deutsche Nakasone wanted her persona, and Jerzy Heisen wanted her death. Snow and the rest of her network wanted to record her persona as well. And Wyeth wanted to use her as bait to snare and destroy Snow's network. According to him, they were all traitors, humans who had sold out to the Comprise, and served the interests of Earth. It made sense when you considered how deeply they were sunk into the experience of machine communion, that they should wish to be part of the ultimate merger of mind into machine. But in all this welter of desires, it was Wyeth who bothered her most. He was using her. For some reason that troubled her even more than the assassination attempt did.

Maxwell was moving faster now, losing rhythm as he approached orgasm. But the answer was already in Rebel's grip. She might not want to look at it, but there it was.

The fact was that it was not Maxwell she wanted inside her. It was

Wyeth she wanted, and not just for a few sweaty hours on the quilt. She was falling for the man, alien four-faceted mind and all, and while it was a stupid thing to do—what kind of future could there possibly be with him?—her emotions were unreasoning and absolute. And who was there to complain to?

Maxwell arced his back, squeezing shut his eyes, and screamed soundlessly. Almost absently, Rebel reached out and squeezed his cheeks, digging her nails in good and hard. The paper birds were all on the floor.

Then Maxwell was lying beside her, sweaty and gasping. For the longest time they said nothing. Then she sent Maxwell out for food and he returned with biscuits, slices of fried yam, and oranges from the trees in the hall. By the time they were done eating, he was interested again. "Wanna do it a second time?" he asked.

"I suppose so."

Then she was alone with her thoughts again. In love with Wyeth. What a mess. What a fucking mess. ●

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ON BOOKS by Norman Spinrad

SCIENCE FICTION VERSUS SCI-FI

Synchronistically enough, at about the time I was writing my last column on "Critical Standards" or lack of same as applied in a rigorous and consistent manner to the literature of science fiction by critics within and without the SF genre apparatus, Tom Easton, a brother critic at this publication's sister magazine, *Analog*, published a column based on the thesis that "what's wrong with SF is sci-fi."

I will leave the full explication of Easton's thesis to Easton (you could look it up, as Casey Stengel used to say), but with a bow in his direction, I will blow my own riff on his pithy aphorism, which certainly admirably served to crystallize some of my own thoughts on the whole question of literary standards within the SF genre.

After all, if it is better to light a single candle than to curse the darkness, someone who has just expended considerable wordage bemoaning the non-application of consistent, rigorous, absolute literary standards to science fiction would seem to be honor-bound to attempt to explore what such critical standards might actually be.

And Easton's aphorism is an excellent point of departure. Much science fiction and fantasy fails literarily because it is infected with the vices, commercial strictures, and pulp conventions of "sci-fi," as often as not without the writer being consciously aware of the process, and much criticism of SF, within and without the genre apparatus, ignores the crucial distinction between "science fiction" and "sci-fi."

For the purposes of this discussion, let me first define "SF," "science fiction," and "sci-fi," as I will use the terms herein.

"SF" will be my all-inclusive term for the marketing genre, as in "SF is anything published as SF," or "SF is anything that an SF editor buys." Since SF editors certainly buy fantasy these days and publishers customarily publish it in their "SF lines," "SF" includes fantasy too. It also includes both "science fiction" and "sci-fi."

"Science fiction" and "fantasy" will be my labels for the two literary branches of SF, as defined in *literary* terms. I will mercifully spare you and myself the usual fu-

tile attempts to fully define the indefinable. Suffice it to say that what I mean by "science fiction" is any work of fiction containing a speculative element belonging to the sphere of the "could be, but isn't," and what I mean by "fantasy" is any work of fiction containing an element which openly and knowingly contradicts what we presently consider the "possible." Thus, for example, *Ender's Game*, 1984, *Timescape*, *A Clockwork Orange*, and *Riddley Walker* are all works of science fiction, and *The Lord of the Rings*, *Winter's Tale*, *The Odyssey*, *Conan*, and *Ancient Evenings* are all works of fantasy.

Defining "sci-fi," however, is a good deal trickier, for it cuts to the heart of the matter.

"Sci-fi," as many of us already know, is a word coined decades ago by Forrest J. Ackerman, one of the first of the Big Name Fans, and it has long since become the media's fave label for the genre, denoting, in the general public's consciousness, those books festooned with rocketships and BEMs (and more recently unicorns and dragons too) in the SF sections of bookstores and libraries, the SF specialty magazines such as this one, most modern comic books, and of course "sci-fi movies" ranging from *2001* to *King Kong vs. Godzilla*.

Fittingly enough, the contents of the Ackermansion, Forrest J. Ackerman's definitive collection of sci-fi memorabilia, nicely epitomizes the bounds of "sci-fi," including as

it does books, pulp magazines, fanzines, comics, artwork, toys, movie posters, bits and pieces of film props and models, and a photographic record of science fiction fandom and its conventions.

The Ackermansion is a museum dedicated to the artifacts and history of "sci-fi," to what the term will mean herein, to the SF genre, or, to put it the other way around, to genre SF.

But what does "genre SF" aka "sci-fi" mean in literary terms?

Well, for one thing, sci-fi, unlike science fiction or fantasy, which have been around as literary modes for centuries on the one hand and time immemorial on the other, has a well-defined and relatively brief history.

It began with the publication of the first science fiction specialty magazine, *Amazing Stories*, in 1926. More specialty magazines followed. "Science fiction fandom" evolved out of the interaction between readers in the letter columns of these magazines. Fans began to publish fanzines. They began to hold SF conventions, then an annual Worldcon, out of which came the Hugo awards. A subculture accreted itself around the kernel of the SF genre. After World War II, SF novels began to be published in paperback. General publishers established regular "SF lines." A flourishing SF small press evolved. The Science Fiction Writers of America was founded, along with its Nebula awards. During the so-

called "SF Boom" of the 1970s, the SF genre became an economically important segment of general publishing.

Thus "sci-fi" as an historical development, a subculture, a marketing concept, and a publishing genre.

A genre that evolved out of the SF pulp magazines, which in turn came into existence as a subset of a whole galaxy of pulp adventure magazines that flourished in the 1920s, 1930s, and 1940s, eclipsed as the dominant mode of popular adventure fiction publishing by the post-World War II rise of the paperback book.

This is what Algis Budrys means when he writes about SF's evolution out of the "pulp tradition." American SF, or at least "sci-fi," did not evolve as a subset of the general sphere of "serious" or "elitist" American literature, but as a subset of *commercial popular literature*, and though by now much SF has long since transcended the literary limits of commercial fiction, its public image is still tarred with the sci-fi brush, to the detriment of the general literary reputations of its more serious and accomplished practitioners.

And to the detriment of much of the work itself.

Even today, the majority of the working writers and editors in the SF field are people who evolved into "pro-dom" through "SF fandom," who attend science fiction conventions, who receive more critical attention in fanzines than in

literary journals, who measure their literary success by Hugos and Nebulas, and whose work is therefore influenced to a greater or lesser degree by the literary values of the subculture of which they are perforce a part.

And *those* literary values are what I mean by "sci-fi," the sci-fi that is what is wrong with so much of what is published as SF, and which tends to insidiously infect even the best of it.

In his excellent textbook on surviving and flourishing as a commercial writer in the marketplace, forthrightly titled *Writing to Sell*, the literary agent Scott Meredith, himself a one-time SF fan, and the literary representative of many of the writers in the genre for decades, sets forth the so-called Plot Skeleton, the formal template for viable commercial fiction.

A strong, or at least sympathetic, hero, with whom the reader can identify, is confronted with a problem he must solve or an unsympathetic villain he must overcome. As the story progresses, the attainment of this goal becomes more and more difficult via a series of plot complications, rising to a crescendo at which point it seems he must fail. But through intelligence, courage, physical prowess, or some combination of the three, he turns the tables and triumphs at the climax of the tale, which should end soon thereafter in a coda or resolution which wraps things up.

This indeed is a reliable formula for successful commercial fiction.

Crank it through cowboys and outlaws and you have a western, spies and counterspies, and you have an espionage thriller, cops and criminals, and you have a detective story, rocketships, alien planets, a galactic overlord, an intrepid spaceman, and you have . . .

Sci-fi.

Notice that the Plot Skeleton is the formal backbone of virtually *all* commercial fiction. Notice that commercial genres are created by running recognizable image systems through it. Notice that it is the generalized Plot Skeleton, *not* the particularized image system, which connects a work of "sci-fi" to the so-called "pulp tradition."

Notice too that what we have here is a formula for manipulating the reader's level of arousal in an escalating series of sine wave not unlike the dynamic structure of a proper lay. Some foreplay, segueing into a driving rhythm of tension and release, building and building up to a peak, an orgasmic climax, and then a slide down into a satisfied afterglow.

What does this have to do with what are generally regarded as the higher literary virtues?

Not very much.

For notice what it leaves out, or even precludes.

Brian Aldiss once castigated SF (or in the current terms, sci-fi) for "lacking a decent sense of despair," perhaps an unfortunate choice of terminology, since I suspect that what he really meant to say was that SF lacked a decent sense of

tragedy. In the classic definition, a work of tragedy requires that an otherwise noble figure come to ruin via some flaw in his character. A more modern sense of tragedy allows the possibility that a good person may be destroyed by the indifferent machineries of an unjust or at best amoral universe. (See Tom Godwin's "The Cold Equations" or for that matter, Aldiss' own *Greybeard*.)

Notice that adherence to the "pulp tradition," the Plot Skeleton, the literary values of "sci-fi," precludes the possibility of tragedy in both senses of the term. The sympathetic hero with whom the reader identifies *must* triumph over adversity lest the reader whom the writer is quite literally mindfuck-ing be left angrily tumescent.

The universe of sci-fi, unlike the universe in which we unfortunately find ourselves, is relentlessly moral; good always triumphs over evil, the white hats always triumph over the black.

And notice that this also precludes the thematic exploration of the spiritual ambiguities confronting imperfect creatures in a less than morally just universe which is ultimately what almost all fiction that attempts to touch the heart and higher philosophical brain centers of the reader must be about. Which is perilously close to saying that "sci-fi" and "literature" are by definition antithetical.

Sci-fi's exploration of morality is generally confined, as so many book jacket blurbs proudly pro-

claim, to the "battle of good against evil"; the teams have their names clearly lettered on their uniforms, and the home team, by definition, must always win.

Yet as we have all long since learned to our discomfort, in the real world, it is not so easy to tell good from evil even *with* a scorecard. No man is a villain unto himself, everyone from Saint Theresa to Adolf Hitler sees themselves as the hero of their own tale, and so the real moral questions almost always arise as the result of conflicting value systems. In true literature, as in the inner life it mirrors, the real moral dialectic is not between good and evil, but between conflicting concepts of virtue.

Until recently I have been quite perplexed at a certain reaction to my novel *Child of Fortune*. Many people who are not regular SF readers who read the novel expressed surprised pleasure.

"I don't like science fiction, but I liked this book, but then *Child of Fortune* isn't science fiction, is it?"

I heard that over and over again, and it drove me crazy. *Child of Fortune* is set several thousand years in the future and takes place on four planets and three spaceships. If *that* isn't science fiction, what the hell is?

But when I read Mr. Easton's column it all became perfectly clear.

Child of Fortune is a *bildungsroman*, a tale of the growth of a young girl to the beginning of her maturity as a woman, and while

there are a certain number of perils for her to overcome, they are mostly perils of the spirit, and the focus is on the evolution of her character, not on a thrill a minute plot. There is no black villain, and no one in the novel would lay claim to being a paragon of moral perfection. It has little to do with a dualistic struggle between good and evil.

Right. You got it.

Child of Fortune is science fiction.

But it is not sci-fi.

Notice that we are not necessarily talking about relative literary quality here, but about *form*. It is certainly possible to set out with the highest intent to explore the moral ambiguities of the human heart and end up writing a lousy book. It is also possible to take the sci-fi plot skeleton as your formal structure and turn out literary masterpieces like *The Man in the High Castle* or *The Stars My Destination*.

Ask a commercial writer, aka hack, why he wrote a given book, and he will tell you, for money. Ask him what it is about, and he will more likely than not give you a plot summary.

Ask a writer with literary ambitions why he wrote a given book and what it is about, and you will be treated to a philosophical discourse of some passion and varying degrees of coherence.

This is not to say that the hack is the moral inferior of the writer with an ambition to create literature. It is when a writer of more

than commercial ambition confuses the manipulative requirements of the commercial plot skeleton with the literary parameters of science fiction, the plot-climax with the thematic resolution of the novel, that sci-fi becomes what is wrong with so much SF.

Take Orson Scott Card's *Ender's Game*, for example.

Humanity has beaten back an alien invasion of the solar system and is now preparing itself militarily to confront an expected second attack. Six-year-old Ender Wiggin is drafted into a program designed to produce spaceship officers and ultimately the strategic genius hero to lead the whole human fleet into battle, who Ender, we are given to understand, is destined to become.

Ender and other tykes like him are taken to an asteroid, where, in addition to their formal education, they play endless rounds of a zero-personal combat team sport designed to mirror the strategic and tactical exigencies of space warfare. Ender later graduates to a more advanced school where the game is played on computers and TV screens with ships and fleets. The description of the playing of these games and Ender's growing mastery of them dominates the novel. In the climax, Ender is playing the commander of the whole human fleet on his video game machine, and it turns out that his controls are slaved to the *real fleet*, which destroys the home planet of the aliens at the cost of many real

human lives as he sets the arcade record.

Card has faithfully followed the Plot Skeleton. He writes a terse, well-paced, transparent line of prose which expertly moves the reader through the story in an escalating series of sine waves, without calling attention to itself, which is the stylistic ideal of the pulp tradition.

It is not surprising, therefore, that *Ender's Game* would be a successful work of commercial sci-fi. But at this writing, the novel has won the Nebula and has been nominated for the Hugo, and from the plot-summary, it is not so easy to see why such a work should stand out from the pack. Something must be going on at a deeper level.

It certainly is.

For one thing, there is a truly bizarre subplot in which Ender's brother Paul and sister Valentine take over political leadership of the Earth while still in their teens. They do this by creating pseudonymous letterhack personas who debate each other on a world wide computer network bulletin board. I kid you not, you could look it up.

For another thing, Ender, Valentine, and Paul simply do not come off as the young children Card tells us they are. Their speech patterns, their level of intellection, the style of their interaction with their peers, what they say and what they do, all mark them as adolescents.

Except for one factor. Superficially, at least, sex never rears its head. What Card gives us in the

guise of young children are *desexualized adolescents*.

Well not exactly, for beneath the surface there certainly is a strong sexual subtext in *Ender's Game*. Paul and Ender compete throughout the novel for the affections of sister Valentine, and in the denouement, Ender, the hero, gets the girl. Valentine goes off with Ender to colonize the home planet of the aliens in a complex, hurried, over-dense final chapter which reads like an outline for a whole other novel, while poor Paul must content himself with being ruler of the solar system.

Why has this novel struck such a strong chord with SF readers? The main plot would seem to be a rather ordinary variation on the plot skeleton, Card's realization of his future civilization is narrowly confined to a few self-contained locales and game-realities, the subplot is entirely unbelievable, and the main character relationship is a thinly-sublimated incestuous love triangle.

No, the strength of *Ender's Game* as a piece of sci-fi can't rest on the plot, or the uniqueness of the speculation, or the world-building, all of which, while certainly craftsmanlike, are no stronger than similar jobs of work in hundreds of novels.

But when we compare the psychic profile of the typical sci-fi fan to the characters Card has created as reader identification figures, we see at once why *Ender's Game* does such a world class job of pushing

the buttons of the targeted audience.

Talk about sympathetic heroes with whom the reader can identify! How about a sexually arrested adolescent who becomes the savior of the human race via his prowess at war-sports and video games? How about two other sexually-arrested adolescents who take over the world as electronic fanzine letterhacks?

This is as close as identification of the audience with the hero can get; in Plot Skeleton terms, the perfect mindfuck, where the identification figures *are* the audience's fantasy images of themselves.

We are getting onto admittedly shaky critical ground here, in which textual analysis skirts perilously close to attempts by the critic to psychoanalyze the author.

Did Card *know* exactly what he was doing? Did he study a psychological profile of sci-fi fandom and cynically craft his work accordingly?

Or is Card himself a psychic citizen of that subculture unselfconsciously expressing its wish fulfillment fantasies?

I *told* you we were on shaky critical ground here. There is nothing more invidious than a Freudian critic who assumes he knows more about the real motivations of the characters and the author than the author does himself, unless it is a Marxist critic holding forth on the economic determinism of the author's motivations.

When in doubt, the critic should assume that the author is as aware

of what he is doing and why as the critic is and then some, and in the case of *Ender's Game*, Card provides ample evidence in the text itself that what we are dealing with here is not so much an exemplar of successful sci-fi as partially failed science fiction.

For one thing, thin as it may be in terms of flowing logically out of the bulk of the novel, there is a nice little piece of moral judo when Ender, all unknowing, commits his act of genocide via game console. For while the adults laud him as savior and hero, he views the result of what he has been conned into doing as just that, genocide, and in the confused final chapter, we see him, in skimpy outline form, expiating his guilt.

In other words, *Ender's Game*, in the end, essays irony; a twist on the dynamics of the sci-fi plot skeleton, which, if successfully executed, would bring the reader up short, become a moral commentary of some complexity on the reader's own power fantasies and the manipulative game the author has been playing with them all along (see *The Iron Dream*), and raise sci-fi to the level of literary art.

Furthermore, Card plants other clues that he fully intends the novel to be read on something deeper than a sci-fi level.

In other works, notably *Hart's Hope*, Card has shown himself to be a writer of some psychological sophistication who knows what he is doing when it comes to crafting and manipulating symbol systems

to complex literary effect.

It is difficult to believe that such a writer would name the central figure in his incestuous love triangle *Valentine* (as in be my Valentine) were he not deliberately pointing to the nature of the relationship.

Even more difficult to believe that he was unaware of the obvious sexual connotations when he named his aliens the "Buggers." That's right, the insectoid aliens who are never really described, aren't called "Bugs" or "Bug-eyed Monsters," but *Buggers* throughout the whole novel. The little boys and girls, the desexualized adolescents, are trained by the adults to go out and fight buggers, and Ender, the hero, wins his Valentine, at least in plot terms, when he exterminates buggery.

What is Card actually addressing in this subtext? He's certainly playing with powerful symbology! Incest, buggery, genocide, and power fantasies lurking darkly below the surface of his supposedly desexualized adolescents, and in the context of a militaristic milieu which seems to indicate that he is groping towards some libidinal equation between military power fantasies, war games, and the sublimated sexual dynamic.

Alas, all this powerfully-evoked psychosexual subtext never coheres into a comprehensible thematic statement, nor does it really seem to mesh with the overt storyline in a way that adds resonance.

Ender's Game is a frustrating

read. One is convinced that Card is trying to say something subtle and important about the relationship between repressed adolescent sexuality, sibling rivalry, incestuous longings, fear of buggery, power fantasies, and how society captures this libidinal energy and bends it towards military purposes. But one is also at a loss to figure out *what*.

Throw out the final chapter, which seems to exist mostly as a bridge to the sequel, *Speaker for the Dead*, which, I am given to understand, was written *before Ender's Game*, and the novel reaches its proper sci-fi climax when Ender destroys the home world of the Buggers.

The hero destroys the villains and gets the girl.

But the girl he gets is his sister, and in his hour of victory what he feels is not triumphant vindication, but *guilt*.

There would be rich irony here if only the psychosexual subtext and the plot climax had come together in a thematic epiphany, if Card had successfully drawn the equation between Ender's repressed incestuous sexuality, buggery as the villain of the piece, the capture of adolescent libido for militaristic purposes, and Ender's feeling of guilt in what should have been his climactic hour of triumph.

The bulk of the novel is something of a guiltless military masturbation fantasy nicely epitomized by the fact that all the action takes place in war games frameworks.

Only when Ender is consumed by guilt after he learns that the final game was real does Card turn the moral tables and make a perfunctory anti-war statement, a thematic turn-around that, in plot terms, seems to come entirely out of left field.

Why, after all, *does* Ender suffer post-coital guilt after the climax? He was *tricked* into exterminating the Buggers by the adults, by society, if you will; he was innocent of knowledge of the crime in the act of its commission, hence morally blameless. Is his feeling of guilt a product of the psychosexual subtext, an emotional awareness of his incestuous feelings for Valentine, transferred by Card onto the plot-resolution in an effort to justify it emotionally?

Ender's Game, it would seem, is two different novels which never quite come together.

The successful sci-fi novel plays the Plot Skeleton game to perfection, warping the reader into total identification with a hero who is himself, who wins battle game after battle game, slays the villains, becomes the savior of the human race, and gets the girl.

But the failed science fiction novel is dealing with much deeper stuff, with material whose thematic resolution is inherently at variance with the plot dynamics of sci-fi.

In *this* novel, the capture of thwarted adolescent sexuality and its transference into war games obsession is an evil con job by so-

ciety, which is to say it is an ironic comment on the very technique that Card himself has used to get the reader off.

The extermination of the Buggers should have been the point where the two strains came together to show the reader the true nature of the meal he has been happily gobbling up all along, so that Ender's guilt becomes his own.

But since Ender has no plot-reason to feel guilty, his guilt feelings, and those of the reader who identifies with them at all, can only come from the unresolved sub-rosa incest theme, another emotional con-job, since the equation between them has never really been drawn.

The trouble with SF is sci-fi, and what seems to have gone wrong with *Ender's Game* is that the exigencies of the reader-identification plotline of the sci-fi novel prevented Card from resolving the thematic material of the science fiction novel, even as the forced attempt to inject a thematic turnaround at the plot climax produced a plot resolution emotionally at variance with the thrust of the conventional sci-fi storyline.

Perhaps Orson Scott Card simply bit off more than anyone could possibly chew. *Ender's Game* could only have worked on both levels if Card had been willing to conceive the novel as a tragedy, if our reader-identification figure had attained moral insight into his act of genocide in the doing, and done it anyway, and by so doing, somehow become self-aware of his incest-

uous relationship with his sister in the process, so that the public and private tragedies became mirrors of each other, à la *Oedipus Rex*.

But adherence to the strictures of the sci-fi format seems to preclude the possibility of tragedy, and while I am casting stones, I might as well throw one at myself.

In my first novel, *The Solarians*, a piece of space opera that certainly qualifies as pur sang sci-fi, humankind has been fighting an endless losing space war with the alien Duglaari. Centuries ago, Earth isolated itself from the rest of humanity, and became the legendary Fortress Sol, keeping alive mankind's hope with the promise that it will come to the rescue at the final desperate hour.

Through plot-machinations and hugger-mugger too tedious to detail, the Duglaari are conned into an all-out attack on Earth with their main battle fleet. The people of Earth then turn the sun nova, vaporizing the Duglaari, the symbol of humankind's dependence on an outside savior, and themselves, all in one unifying, bittersweet, tragic explosive image.

Pretty neat, huh? Pretty heavy stuff for a sci-fi novel? How's *that* for a unifying climactic image?

Alas, somehow, I just couldn't leave it alone. I just couldn't bring myself to *really* vaporize five billion heroic people in the context of a sci-fi novel.

Even as Orson Scott Card appended a chapter to *Ender's Game*

that attempted to tie things up thematically after the real story was over, I tacked on a coda to *The Solarians* after that novel had reached its true tragi-triumphant climax, in which it is revealed that all those people didn't *really* sacrifice their lives for humanity's survival. They packed themselves into a fleet of giant spaceships and fled to safety, detonating the nova by remote control.

This all-too-common reluctance to bite the thematic bullet of tragedy, this fastidious unwillingness to violate sci-fi conventions, has marred many a science fiction novel far superior to something like *The Solarians*, or for that matter even *Ender's Game*.

If SF novels in general have a characteristic literary flaw, it is that they tend to end badly, they tend to fail to come to a climax that resolves plot and thematic imperatives in a unified manner, which is to say they end with mere action climaxes which fulfill the requirements of the Plot Skeleton, but leave the real story unresolved. And perish the thought that the hero, the reader identification figure, should *die* at the end of the novel, even when this is the tragic denouement that the story has been building to all along.

Case in point, Walter Jon Williams's *Hardwired*. This is unquestionably a work of true science fiction in the present context, infinitely superior on an absolute literary level to something like *The*

Solarians, or to *Ender's Game*, or even to Roger Zelazny's *Damnation Alley*, to which Williams pays homage in the dedication.

The cover copy compares *Hardwired* to Gibson's *Neuromancer*, and in a certain sense the novel does entitle Williams to call himself a card-carrying Cyberpunk.

In this future world, the Orbitals living in space are the exploitative overlords of a semi-ruined Earth they deliberately keep in a state of economic depression. Cowboy, the hero, is an ex-fighter jock and present-tense "Panzerboy," a medical smuggler running the Alley (homage à Zelazny) in his armored car, to which he is thoroughly cyborged. Sarah, the heroine, streetgirl, sometime whore and assassin, is cyborged to the Weasel, a weapon that lays coiled in her throat. Both come replete with many artificial sensory enhancements, most of the other characters are loaded with such enhancements, there is even an electronic ghost named Reno who survives in the computer net, brand names abound, and Williams' prose style superficially resembles Gibson's.

But *Hardwired* is far from being a *Neuromancer* clone, for while the cultural ambience of this novel, the dialog, the cyber hugger mugger, even the surface feel of the characters' consciousnesses, do indeed seem to be in the Gibson mode, Williams gets deeper into his characters' hearts than Gibson does, and at their hearts, both Cowboy and Sarah are tender creatures,

romantics, even idealists.

Sarah is motivated throughout by love for her worthless and treacherous brother, and, even as in real life, we moan at the tragic blunders this leads her into, we yearn to shake her by the shoulders and wake her up, even as we recognize all too well that we have seen the results of such misplaced love before.

Cowboy *knows* that he is a predoomed tragic figure fighting the good fight against forces far too powerful to defeat, he sees *himself* as an atavistic exemplar of the Western hero caught in a ruined latter-day world. Indeed it is his consciously understood desire to live out this legend to its tragic conclusion, and go out in a blaze of glory, in some magnificently futile gesture, and "win for himself a slice of immortality, a place in the mind of every panzerboy, every jock. . . ."

In the situation that Williams has set up, the resistance which Cowboy ends up leading cannot *really* hope to overthrow the overlordship of the Orbitals and rescue humanity in the time-honored sci-fi tradition. In the story that Williams has so carefully fashioned, the best that can be achieved is a single victory within the context of a struggle that must go on long after the novel is over, a spiritual victory which gives Cowboy his legendary and semi-tragic apotheosis in death as a symbol of freedom painted across his beloved sky.

And Williams takes us right to

the brink. He sets up a plot situation which puts Cowboy back in his fighterplane to lead a battle to destroy an incoming Orbital ship. If the ship is destroyed, the Earth may not be freed, but a worthwhile victory will be won.

The climax of *Hardwired* is a long, well-written, aerial combat sequence, the denouement of which leaves Cowboy, his weapons out of action, as the only fighter left to take out the Orbital ship, and only one way to do it, smack in the middle of the moment the novel and his whole life have pointed toward.

"The interface demands a certain solution, and the decision is taken without conscious volition. But somewhere in Cowboy's mind there is a realization that this is the necessary and correct conclusion to his legend, to use himself and his black-matte body as the last missile against the Orbital shuttle and win for himself a slice of immortality. . . .

"Cowboy accepts the decision of his crystal. A bark of triumphant laughter bursts from his lips as the shuttle grows larger and larger in his vision. . . ."

And then—

And then a spearcarrier, a sidekick in another fighter, The Black Sidekick, fer chrissakes, appears out of nowhere, rams his plane into the shuttle, and saves Cowboy's life!

Oh shit.

Having done such a wonderful job of melding theme, plot, world-building, political and economic

extrapolation, and character, and bringing them all together to this textbook-perfect moment of apotheosis where they all come together in a single pivot point, Williams blows it. He does almost exactly what I did in *The Solarians*, only worse, first because *Hardwired* is a much better novel, second because I at least gave the reader the momentary illusion of proper resolution only to yank it back, whereas Williams takes the reader to the brink and chickens out entirely.

Having thrown away the perfect tragic confluence of plot, theme, and character, Williams is then reduced to a mere sci-fi resolution, a plot-skeleton schtick, admittedly rendered as well as anything in *Neuromancer*, in which he and Reno use the interface to destroy the baddest of the baddies. And Cowboy and Sarah get to ride off into the sunset together.

Oh yes, the trouble with SF is sci-fi! Even a science fiction writer with Walter Jon Williams' plotting skills, thematic depth, sure hand at characterization, and mastery of prose style, even a novelist who gives abundant evidence that he knew where he was going all along, can't bite the bullet of tragedy in the moment of truth. He can't kill his reader-identification figure. He can't let his sympathetic hero go out in an act of philosophically, psychologically, politically, and, yes, morally justified suicide.

And if the trouble with SF writers is their adherence to the sci-fi

formula even in the teeth of thematic and characterological imperatives to the contrary, then the trouble with SF editors is their adherence to the marketing strictures of sci-fi publishing even when the literary imperatives point so glaringly in the opposite direction.

Williams' error in *Hardwired* is hardly a subtle one, and it would have been simplicity itself to fix it in the editing process. Everything was there already except the climactic moment. One little paragraph and then a short coda from Sarah's viewpoint would easily enough have given this fine novel the perfect thematic resolution it so richly deserved. Surely any competent editor should have seen this on a quick first reading.

Has the level of editorial professionalism in SF publishing really sunk this low?

Alas, I think not.

No, from the point of view of the SF editor who knows the targeted sci-fi audience, Williams' error as a science fiction author is Williams' correct commercial judgment as a producer of sci-fi. Had Williams turned in *Hardwired* with the thematic ending its literary imperatives had called for, his editor would like as not have called for a rewrite bending the novel towards just the conventional sci-fi ending it bears the burden of in print.

Kill the sympathetic hero? Eschew the scene in which he destroys the ultimate villain? Portray instead an act of heroic suicide as his spiritual victory? One can al-

most hear the savvy editor moaning.

"The fans will never buy it, Walt. They'll feel cheated. It's too damned *literary*. The hero has to defeat the villain. You can't kill off the reader-identification figure, he has to live to get the girl. And to star in the sequel, which you had better set up in case this wins the Hugo."

Who knows, maybe that's just the way it happened.

Consistent critical standards? In a sense we have them already. Sci-fi evolved out of the adventure pulps and the pulp tradition provides authors, editors, and critics with a template against which to measure the commercial viability of genre SF in the form of the Plot Skeleton, measured against which Williams and his editor were dead right, and my criticism of the ending of *Hardwired* is dead wrong.

But if we, as writers, editors, and critics, dare to aspire to a vision of science fiction in an absolute literary sense, as a subset of seriously intended literature at large, rather than as a species of commercial pulp writing, then we must hold SF to a higher standard, an absolute standard, a set of critical standards *antithetical* to many of the stric-

tures of successful sci-fi.

We know what those standards are too. They are at least as old as Plato and Aristotle, as Shakespeare and Tolstoi, and as contemporary as any heartfelt tale truly and courageously told according to the uncompromising demands of the story itself. If we dare to apply *these* standards, the time and place of the setting become entirely irrelevant to our judgment of the extent to which a work of fiction succeeds as literary art.

If the critical establishment should ever choose to apply these standards impartially to SF and non-SF alike, many successful Hugo and Nebula winning works of sci-fi will stand naked as literary failures.

But some works of *science fiction* will be revealed as worthy of taking their place in *any* literary company, and if we within the SF community should ever dare to apply absolute literary standards pitilessly to *ourselves* on a consistent basis, science fiction may yet evolve to take its rightful place in the literature of our species.

It's all a matter of what we want to be when we grow up. Or whether we want to grow up at all. ●



SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

There's a lull in con(vention)s over the holidays (though the top two names on our masthead are in action), so we can look ahead to 1987. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For a longer, later list, an explanation of cons, & a sample of SF folksongs, send me an SASE (addressed, stamped #10 (long) envelope) at 4271 Duke St. #D-10, Alexandria VA 22304. The hot line is (703) 823-3117. If a machine answers, leave your area code & number. I'll call back on my nickel. For free listings, let me know about your con 6 months ahead. Look for me at cons as "Filthy Pierre."

NOVEMBER, 1986

7-9—**OryCon**. For info, write: Box 5703, Portland OR 97228. Or call: (503) 283-0802 (10 am to 10 pm, not collect). Con will be held in: Portland OR (if city omitted, same as in address). Guests will include: Edward Bryant, editor Jessica Amanda ("Amazons") Salmonson, George R. R. Martin.

7-9—**SciCon**. Sheraton Beach Inn, Virginia Beach VA. C. J. Cherryh, Marty (the Vampire) Gear.

8-10—**TusCon**. Executive Inn, Tucson AZ. Terry Carr, Robert Bloch, Edward Bryant. Note new guests.

14-16—**PhilCon**. Adams Mark Hotel, Philadelphia PA. I*S*A*A*C*A*S*I*M*O*V, Pohl, artist M. Whalen.

14-16—**WindyCon**. Woodfield Hyatt, Schaumburg (Chicago) IL. H. Harrison, D. Wollheim, M. Randall.

15—**Apricon**, BC SF Soc., 317 Ferris Booth Hall, Columbia Univ., New York NY 10027. (212) 280-3611.

28-30—**ConTex 4**, % FoF, Box 772473, Houston TX 77215. L. S. & C. C. deCamp, artist P. Breeding.

28-30—**LosCon**, 11513 Burbank Blvd., N. Hollywood CA, 91605. (818) 760-9234. Pasadena, CA.

DECEMBER, 1986

5-7—**CzarKon**, % Edwards, Rt. 2, Box 111, Pacific MO 63069. (314) 742-3813. Warren Norwood, fan Nancy Nutt, artist Joan Hanke Woods. The annual St. Louis adults-only relax-a-con (light program).

5-7—**TropiCon**, % SFSFS, Box 70143, Ft. Lauderdale FL 33307. (305) 392-6462. Lee Hoffman, G. A. Ruse, S. Sucharitkul, B. Linaweaver, R. Collins, T. R. Sullivan, S. Adams, and some guy named Dozols.

5-7—**ConCon**, % MCFI, Box 46, MIT PO, Cambridge MA 02139. A con for those who run conventions.

JANUARY, 1987

2-4—**EveCon**, % FanTek, Box 128, Aberdeen MO 21001. Washington DC. Late for New Year's this time.

16-18—**ChattaCon**, Box 921, Hixson TN 37343. Chattanooga TN. Niven, C. Stasheff, Zahn, D. Cherry.

16-18—**EsoteriCon**, Box 22775, Newark NJ 07101. (201) 672-9244. New Brunswick NJ. Occult emphasis.

FEBRUARY, 1987

13-15—**Beskone**, % NESFA, Box G, MIT PO, Cambridge MA 02139. Boston MA. 4,000 in 1986.

AUGUST, 1987

27-Sep. 2—**ConSpiracy**, 23 Kensington Ct., Hempstead NY 11550. Brighton, England. WorldCon 1987.

SEPTEMBER 1987

5-8—**CactusCon**, Box 27201, Tempe AZ 85282. Phoenix, AZ. The NASFiC, held whenever the WorldCon is overseas.

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